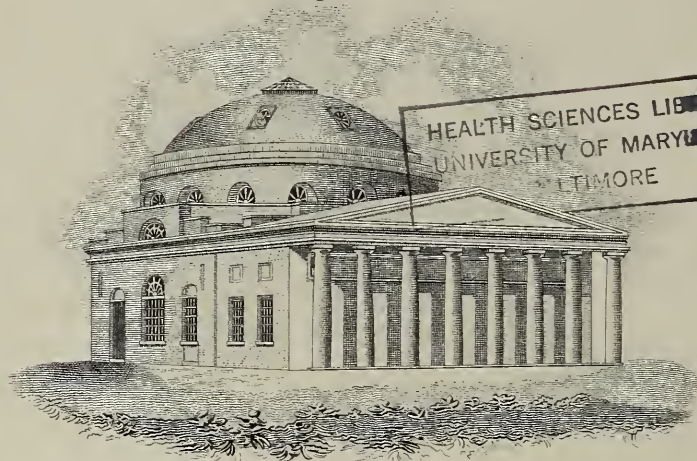


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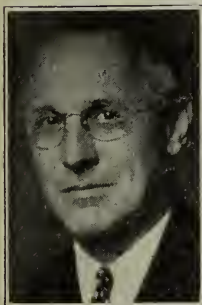
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No. 1

THE DIAGNOSIS OF PYURIA IN CHILDHOOD AND ITS TREATMENT WITH MANDELIC ACID AND SULFANILAMIDE*

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So much has been written about the frequency of pyuria in childhood that there has been a tendency to make the diagnosis every time a few pus cells are found in a specimen of urine which has been obtained in the usual manner. Pus cells in such a specimen may indicate an infection of the bladder or upper urinary passages; more frequently, however, they are merely evidence that there has been an admixture of pus from the vaginal secretion in the female or slight irritation under the prepuce of the male.

The presence of pus cells in a single specimen of urine passed in the usual manner should never be relied on to make a diagnosis of inflammation of the upper urinary passages. In the female, a catheterized specimen of urine should be obtained from the bladder; this should be examined microscopically for pus, a centrifuged specimen should be stained by Gram's method, and a culture should be made in order to ascertain the type of organism which is causing the infection. In the male, the foreskin should be retracted, the meatus wiped with a little cotton (which has been moistened with sterile water) and, after the patient has passed a few cubic centimeters of urine to wash out the anterior portion of the urethra, the specimen should be caught in a sterile container. In infants, and in the case of uncoöperative older boys, a specimen may be obtained by means of a ureteral catheter. In this way the presence of infection can definitely be determined. Usually pus is found in the

urine, Gram-negative bacilli in the smear and on cultures. If the culture and Gram stain prove to be negative for bacteria and if pus is present, it is likely that the patient is suffering from tuberculosis of the kidney. If the stain is positive and the plate culture negative after twenty-four hours, it is probable that the infection is due to an anaërobe or to some very slow-growing organism. Cultures are made with eosin-methylene blue agar, by means of which it is possible to differentiate between the most common of the Gram-negative bacilli found in the urine. Blood agar is used to differentiate the streptococci.

Until recently, identification of the various so-called Gram-negative bacilli found in urinary infections was not carried out and, as long as the treatment in no way depended upon the particular type of organism that was present, it was not necessary to

*Read before the meeting of the Michigan State Medical Society, Detroit, Michigan, September 19-22, 1938.

differentiate members of this group. Now that drugs are available which act differently on various organisms, however, and which act only when certain conditions are obtained in the urine, it becomes necessary to know which particular type or types of bacteria are causing the infection. An example of such a drug having a specific action is sulfanilamide. This drug does not affect *Streptococcus faecalis*, however, and is thus useless in the treatment of infections caused by this organism. Another example is the almost insurmountable difficulty of acidifying the urine in infections with *Proteus ammoniæ*, and still another is the great resistance of *Pseudomonas* infection to anti-septic therapy.

A determination of the presence and type of infection must be followed by the determination of the status of renal function and the normality of urinary drainage. There are still too many children who have had their kidneys irreparably damaged by long-continued back pressure and infection before they were referred to a urologist for the relief of stasis. It is the duty of the physician treating infections of the urinary tract to include in his diagnostic program the determination of the renal function and the absence of urinary stasis. Facilities for the determination of the blood urea and for intravenous urograms are now within the reach of private practitioners almost everywhere.

It is very evident, therefore, that the diagnosis of an inflammatory lesion of the urinary passages should rest on more clinical data than the mere finding of some pus cells in the urine and, likewise, a cure on more evidence than a urine free of pus cells. Unfortunately, it is still very common to find the diagnosis based solely on the presence of pus, and the cure on its disappearance from the urine. This all sounds very complicated, but it can be simplified in general practice. Bacteria alone, or with pus, found in a specimen properly obtained can be identified under the low power lens of a microscope, and culture for determination of the sterility of the urine can be very simply made with only a catheter and an agar tube.

Having determined the existence of infection and its nature, and having ascertained that the function of the kidneys and urinary drainage are normal, how does one

proceed with the treatment? It has been my experience that, in the hands of the man in general practice, the simplest mode of treatment is likely to give the best results. It is for this reason that I recommend sulfanilamide. This drug is given in a standard dose per pound of body weight and no attention needs to be paid to the reaction of the urine or to the concentration of the drug except when excessive amounts of fluid are prescribed.

Sulfanilamide acts best in an alkaline urine and it usually produces an alkaline urine by the washing out of alkali. It is, therefore, well to give from 10 to 15 grains (0.65 to 1 gm.) of sodium bicarbonate three times a day with the sulfanilamide in order to prevent acidosis. The dose of sulfanilamide which I have found to be sufficient in most cases is 10 grains (0.65 gm.) per 20 pounds (9 kg.) of body weight; if necessary, the dose may be increased to 15 grains (1 gm.) per 20 pounds of body weight, as recommended by Long in the treatment of streptococcus infection. For short periods the dose may be increased to 20 grains (1.3 gm.) per 20 pounds of body weight. It is possible, further, to increase the urinary concentration without increasing the blood concentration by cutting down on the intake of fluids.

Long has pointed out that cyanosis is of no significance as a toxic manifestation, but a rash, fever and rapid fall in the number of erythrocytes or leukocytes necessitates immediate withdrawal of the drug.

For many years the administration of large amounts of fluids and alkalinization of the urine have been the standard treatment in acute cases of pyelitis, especially in infancy. In addition to this routine treatment, sulfanilamide can be given very advantageously every four hours in the dosage just indicated. With the addition of sulfanilamide to the scheme of treatment, the acute symptoms, high fever and restlessness may disappear at an earlier time than usual. Administration of the drug should be continued in the same dosage until a culture of the urine no longer shows evidence of bacterial growth. The frequency with which bacteria return in cases in which administration of the drug is discontinued immediately after the urine becomes sterile indicates the necessity for a longer period of anti-sepsis to cure the patient. The drug should

be given for from four to six days after the urine has become sterile. If, at the end of a week, the urine is still found to be sterile, administration of the drug should be discontinued and an interval of three or four days should be allowed to elapse. Another culture is then taken and if it, too, is sterile, one may be quite certain that the patient has been cured. If, on the other hand, the culture of the urine again shows bacteria, then it must be assumed that bacterial growth in the urine was merely inhibited and that further treatment is necessary. Instead of 10 grains, 15 grains of sulfanilamide per 20 pounds body weight should next be tried and the same process repeated. It is advisable in such cases to continue the same dosage for eight to ten days after first obtaining a sterile urine. Four days after discontinuation of the medication, the urine should again be checked by culture for sterility of the urine. The same procedure is carried out in cases of subacute and chronic infections, with the exception that no effort is made to force fluids.

A rapid recovery from both acute and chronic infections is likely when the infecting organism is any one of the group of Gram-negative bacilli, *Escherichia coli*, *Aerobacter aerogenes*, *Salmonella*, *Proteus vulgaris*, or *Proteus ammoniæ*. The same applies to staphylococcus infection of the lower portion of the urinary tract. Pseudomonas infections are more difficult to cure. The excellent results obtained in treating infections with the bacillus, *Proteus ammoniæ* (encrusted cystitis), should be emphasized because it, in particular, has been resistant to methenamine and mandelic acid as well as to therapy by means of the ketogenic diet. All three of these modes of treatment are dependent upon a strongly acid urine for their bactericidal action, and the highly alkaline nature of the urine in *Proteus* infections prevents this.

When the function of the kidneys has been so reduced in chronic pyelonephritis that the value for blood urea has risen above 50 mg. per cent, the kidneys are usually unable to excrete urine of low pH. The same situation may arise when only one kidney is affected. The normal kidney is able to excrete urine of low pH with definite bactericidal power, whereas the affected kidney secretes a urine of higher pH without bactericidal power. It was very helpful to discover that sulfanilamide is secreted in

bactericidal concentrations in the urine of patients who had values for blood urea varying from 50 to 100 mg. per cent. In four of five such cases the urine was sterile, although only temporarily so. Such a result I had never achieved with any other drug. The concentration of free sulfanilamide in the urine never rose above 25 mg. per cent in these cases and yet a sterile urine was obtained in four of the five cases. Great care must be exercised in the treatment of this group of patients because the inability of the kidneys to secrete sulfanilamide at the normal rate may result in the drug accumulating in the blood and producing toxic symptoms.

So far I have reported only the advantages of treatment by means of sulfanilamide. Its one great drawback, however, is its ineffectiveness in treating infections caused by *Streptococcus faecalis*. This streptococcus seems to grow luxuriantly in concentrations of sulfanilamide which will rapidly kill off bacilli of the Gram-negative group.

Since I have used sulfanilamide it has become evident that *Streptococcus faecalis* is a much more frequent invader of the urinary passages than I had formerly realized. I have found, on a number of occasions, that a patient with pyelitis, apparently a pure *Escherichia coli* infection, was rapidly rid of this organism by means of sulfanilamide, only to find that the urine, on culture, then contained innumerable organisms of *Streptococcus faecalis*. I found, in looking over old charts of patients infected with *Escherichia coli* who had been successfully treated with methenamine, the ketogenic diet, or mandelic acid, that it was not unusual, on culturing the urine, to find a few colonies of *Streptococcus faecalis* on the agar plates after the *Escherichia coli* had completely disappeared. The continuation of treatment usually resulted in the disappearance of these streptococci also. This would indicate that *Streptococcus faecalis* does not grow in urine containing formaldehyde or organic acids as it does in urine containing sulfanilamide, and that it is more resistant to treatment than the colon bacillus but can eventually be killed off when treatment is persisted in. How frequently mixed infections occur should become evident with the continued use of sulfanilamide. If there are many, the success of sulfanilamide therapy

will be decreased, and this will necessitate treatment by means of a combination of sulfanilamide and mandelic acid.

Organic acid therapy was introduced in the form of the ketogenic diet. More successful than any previously used method of treatment, the difficulties of taking the diet were, nevertheless, such that, when Rosenheim showed that mandelic acid would act just as successfully as beta-oxybutyric acid in the cure of urinary infections, mandelic acid entirely replaced the diet.

Mandelic acid acts bactericidally in a urine of a pH below 5.5 and at a concentration greater than 0.5 per cent. Whenever these conditions can be attained, it is possible to clear up infections caused by any of the usual organisms which are found in pyogenic infections of the urinary passages with the exception of the tubercle bacillus. The fact that these two conditions are necessary in order to obtain bactericidal action makes the treatment somewhat more difficult. However, in view of the fact that the acidification of the urine and the concentration of mandelate in the urine is usually sufficient when ammonium mandelate or calcium mandelate is given in a dose of 1 gm. per day for every 100 c.c. of urinary output in twenty-four hours, it is usually possible to attain a good therapeutic result without further testing of the conditions of the urine. It is preferable to test the pH of the urine with nitrazine paper to make sure that it is below 5.5. If necessary, ammonium nitrate (0.5 gm. four times a day) may be given in addition if the acidity is not great enough. The excretion of mandelate is almost entirely by the kidney, so that a dose of 1 gm. per 100 c.c. of urinary output practically assures a concentration more than 0.5 per cent. The usual adult dose of 45 grains (3 gm.) four times a day is given to children from twelve to fifteen years of age. Infants can take 10 grains (0.65 gm.) four times a day and, depending on urinary output, a gradually increasing dose with age up to the adult dose.

In the treatment of urinary infections by means of mandelic acid, the following procedure is of advantage: On many occasions I have seen a sterile culture obtained from the urine twenty-four hours after starting treatment. It is advisable to continue treatment for three or four days after the urine has become sterile as tested by culture. Administration of the drug may then be discontinued and, after another interval of

three or four days, culture repeated; a sterile culture then indicates cure. The drug is not very palatable, and the ammonium salt cannot be easily disguised by any other flavor. The calcium salt is somewhat bitter but not particularly unpleasant. When the little patient will not take the drug, or cannot take it by mouth because of nausea and vomiting, it may be administered in suppository form in exactly the same dose.

Failures with mandelic acid therapy occur in cases in which the function of the kidney is lowered and in which the necessary acidity of the urine cannot be reached. A recent patient, whose blood urea was 38 mg. per cent, was cured of a colon bacillus infection by the use of sulfanilamide, only to have *Streptococcus faecalis* appear, which could not be cleared up with mandelic acid because the pH of the urine could never be reduced to the bactericidal level. This may apply to one or both kidneys. In cases of infection with *Proteus ammoniae* in which the alkaline reaction persists regardless of the giving of acid salts, the bactericidal range can never be reached. Fortunately, such cases are rare in infancy and childhood.

Treatment by means of sulfanilamide is, as has been indicated, easier to carry out than is treatment by the ketogenic diet, methenamine, or mandelic acid. It is successful in urine which is alkaline because of urea-splitting organisms, and it is successful in conditions in which the function of the kidney is reduced. Sulfanilamide, as has been said, is of no value in the treatment of infections with *Streptococcus faecalis*. Mandelic acid is of value in the treatment of all infections in which the urinary acidity can be reduced below 5.5 and the drug excreted in a concentration in 0.5 per cent.

In conclusion, I wish to emphasize the duty of the physician in determining the absence of stasis in the urinary passages before dismissing any patient he has been treating for infection of the urinary tract. Markedly lowered renal function is the one condition which prevents successful treatment, and only if infection and back pressure are recognized early will it be possible to prevent damage to the kidneys. An excretory urogram and a culture of the urine will tell the story. Closer coöperation between pediatricians and general practitioners and the urologist will save many deaths in later life from renal insufficiency.

TREATMENT OF IMPOTENCE

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CHICAGO, ILLINOIS

Impotence is the inability to perform the sexual act. It is a very common disturbance and one which often causes the urologist deep concern. The causes are roughly divisible into two groups: (1) Organic; (2) Psychogenic. This classification is not as valid as it may seem on the surface, for very often there is a blending of the two elements. A man suffering with impotence due to an organic lesion may appear to have a psychic disorder. Likewise—as is more often the case—a man with psychic impotence may simulate true or organic impotency. Also, psychic and organic factors may operate simultaneously. In men between the ages of twenty and forty, impotence, more generally, is due to a disturbance in the psychic system than to an anatomic defect in the genitalia.

By the use of the term impotence we do not merely imply that there exists a condition of partial or incomplete erection. The inability to display or perceive the various manifestations which characterize physiological coitus, denotes a state of impotency of greater or lesser degree. We recognize the stages of copulation as: (1) The stage of sexual excitement or the pre-copulatory phase; (2) The stage of increased glandular activity; (3) Erection; (4) Introduction of the phallus; (5) Frictional movement; (6) Existence of voluptuous or pleasurable sensation; (7) The orgasm; (8) Ejaculation; (9) Detumescence, or the return of the erect organ to a state of flaccidity.

Erection is that physical state essential for the introduction of the phallus. It is essentially a process of hyperemia. The influx of arterial blood is augmented by heightened blood pressure and complete vaso-dilatation. Outflow of blood is prevented by a process of venous constriction. Physiologists and anatomists have given their best efforts to solve the mystery of how blood is retained within the erectile bodies. Every sort of explanation has been offered. One theory that has gained considerable credence is that there exist special valves within the penile veins known as funnel valves which supposedly only function during sexual excitement and serve as complete barriers to the egress of blood. Time and again, attempts have been made to demonstrate special muscles within the veins which serve as vaso-constrictors. Anatomists have also tried to prove that the uro-

genital diaphragm is capable of blocking the outflow of blood. None of these explanations has been fortified by scientific proof.

One of the first clues to the physiology of erection was furnished by the experiment popularly known to medical students of yesteryear as the "wassersteife." This consisted of placing a firm rubber band around the base of a cadaver penis and injecting water into the deep dorsal penile vein until the penis became firm and erect. While it is true that the penis of the cadaver may be made firm and erect in this manner, it does not follow that this is the process which is enacted in life. There is considerable evidence to show that it certainly is not the physiological *modus operandi*. In any number of instances the deep and superficial dorsal veins have been ligated with the hope of producing erection by passive congestion. All such surgical efforts have ended in failure.

It is my belief that blood is retained within the erectile bodies in sufficient volume to maintain organ turgidity, by the mechanical distension of the trabeculae against the venous draining system. The arterial inflow is so voluminous and so sudden that the veins are temporarily choked off by the distended blood spaces. Rigidity of the penis is due to the increased blood pressure within the penile arteries and the resultant distension by the inflowing blood against the firm tunics and fascial coverings of the erectile bodies. Elevation of the penis is effected partly by the suspensory ligament of the penis and to the anatomic fact that the dorsal surface of the penis is shorter than the ventral surface. The erector muscles aid in the process and also serve to stabilize the erection.

A wide variety of stimuli may generate erection:

*Delivered before the Detroit branch of the American Urological Association, October 7, 1937, at Detroit, Michigan.

1. Local stimulation of the sensitive nerve endings of the glans penis may induce erection. This may be a simple reflex process, independent of the higher cerebral centers.

2. Psychogenic erection resulting from phantasied images, or from previous impressions.

3. Sensory impulses emanating from the organs of special sense are, undoubtedly, the usual mode of arousal. Stimulation from the libidinal zones serves to augment the intensity of the process. Emotional stimuli are conveyed to the sexual centers in the brain, from whence they pass through the extrapyramidal tracts to the centers regulating the sympathetic system. Concomitantly, impulses are carried to the erector centers in the lumbar and sacral segments of the cord to the hypogastric plexus. From these sites impulses pass to the corpora cavernosa.

4. Organ reflexes may generate erection. Over-distended seminal vesicles or a congested prostate, by pressure effects against their sympathetic innervation, may induce a hyperemic state of the erectile bodies. Irritation of the veru can readily induce an erection, a phenomenon often noted when silver nitrate is applied to the posterior urethra.

5. Indirect pressure of the accessory sexual glands by a distended bladder is the explanation offered for the common morning erection which usually vanishes on emptying the urinary bladder:

6. Pathologic erection due to chronic degenerative processes. This type of erection is seen in cases of leukemia; severe forms of uremia; thrombus of the vessels draining the corpora cavernosa; tabes and neoplasm of the lower cord.

7. Cerebral irritation induced by tumors of the pineal body is a condition rarely encountered.

8. Erection may be due to the irritant action of drugs such as follows the ingestion of cantharides or yohimbin.

The organic causes of impotency are classified in the following groups: (1) Congenital deformities; (2) Endocrine disorders; (3) Diseases of the central nervous system; (4) Debilitating disorders; (5) Local causes.

For the sake of academic completeness, I shall list the main congenital disabilities,

though most of them are extremely rare. These defects are: Absence of penis; abnormally small organ; absence of glans penis; absence of erectile bodies; synechia of penis to scrotum; an accessory urethra; unformed urethra; epispadias; hypospadias; congenital fistula of the urethra; congenital stricture of the urethra; ectopia of the bladder; pseudohermaphrodisim; hermaphrodisim; double penis; bone in the penis; short frænum; urethral valves.

Ever since the year 1889, when Brown-Séquard injected into himself a dilute and crude extract of testes, the subject of endocrine influence in sexual potency has been gaining in importance. To recall the facts of this celebrated experiment, Brown-Séquard injected into himself 1 c.c. of testicular extract daily for a period of two weeks. The improvement lasted for a month. He noticed that he felt less fatigue and in a certain sense experienced a feeling of rejuvenation. However, he admitted that suggestion probably played a considerable part in the improvement.

Decreased action of the thyroid, associated with a lowered basal metabolism, may lower sexual vitality. Hyperpituitarism (acromegaly) may be responsible for loss of sexual power. More frequently, one sees cases of hypopituitarism (Fröhlich's syndrome), a condition characterized by abnormal deposits of fat and an infantile-sized penis and testes. Impotency is also associated with eunuchoidism and infantilism.

Decreased sexual potency may be due to organic lesions of the central nervous system. Principally these affections are: injury to the brain and spinal cord; cerebral hemorrhage, thrombosis or embolism; cysts or tumors of the brain; lethargic encephalitis; meningitis; multiple sclerosis; myelitis; progressive paralysis; premature arteriosclerosis; paralysis agitans; cerebrospinal syphilis and tabes. In several of these afflictions priapism may precede impotency.

Habitual use of certain drugs may lessen the libido. Morphine or one of its derivatives is a powerful depressant of the vita sexualis. Addiction to acetanilid or phenobarbital may definitely curb the sexual ardor. Beer, wine or spiritus frumenti in moderate quantities act in most individuals as a tonic and serve to stabilize the sexual integrity. I particularly caution against the use of most home brew concoctions. Dur-

ing the period of prohibition, I saw several cases of genital disorder which were traceable to the poisonous action of improperly made alcoholic beverages.

The local causes of impotency are most familiar to urologists and are the ones which are most amenable to treatment. These are: congenital phimosis; short frænum; pin-point meatus; prostatitis; seminal vesiculitis; verumontanitis; benign tumors of the veru; stricture of the anterior or posterior urethra; pathologic growths on the glans penis; bladder, prostatic, and urethral stone. Among the more severe local causes of impotency there are: induratio penis plastica; varicocele, hydrocele or hematocele which interfere with introduction of the phallus; gangrene of the penis; traumatized perineum resulting from gunshot or injury; fracture of the penis; the end-result of prostatectomy.

Debilitating diseases such as pernicious anemia, severe secondary anemia; nephritis, arteriosclerosis, gout, diabetes mellitus and insipidus, cachexia, diseases due to vitamin deficiency, typhoid fever and influenza may undermine the erectile power. The toxins may exert their action on the endocrine organs or on the genital nerve plexuses.

Coitus interruptus, commonly known as withdrawal, often does considerable harm to the sexual apparatus. This unphysiological method of prevention induces prostatitis, seminal vesiculitis and verumontanitis, which in turn upset the normal neuro-muscular mechanism which operates in sustaining erection. If this practice is indulged over a period of many years, it is apt to lead to atony of the genital musculature. Coitus prolongatus may have an injurious effect on the prostate. Coitus reservatus—the act of performing coitus without ejaculating—may have a deleterious effect.

Correction of inadequate erection due to organic causes is obtained by medical and surgical measures. I will frankly state that I do not use nor have much confidence in the popular aphrodisiacs. The ineffectiveness of this group of drugs impressed itself on me many years ago, since which time I discontinued prescribing them.

When definite signs exist that the thyroid gland is over- or under-functioning, I use the appropriate medication. Men with a very low basal metabolism often experience

a return of vitality when their metabolic rate is increased to a normal level.

The injection of male sex hormones, has received wide application. Since Berthold in 1849 offered scientific proof that the testicles control the size of cockerel combs, an overwhelming amount of research has been done along these lines. In experimental animals, it has been shown that injection of androgen substances will increase skeletal growth, improve muscular tone, raise the metabolic rate, elevate the hemoglobin and oxidase content of the blood and tissues, and control the development of secondary sexual characteristics as well as the accessory reproductive organs. In humans, we do not know as yet just what usefulness these substances have in the treatment of impotence. In cases where there is definite evidence that the subject suffers from lack of male hormone, it is likely that therapeutic success may be achieved. Pituitary hormone is of definite value in impotency associated with the Fröhlich syndrome.

My most striking results in organic impotency are obtained by employing orthodox urological measures in cases of prostatitis, seminal vesiculitis and stricture of the urethra. Evacuation of stagnant secretion contained within the accessory sexual glands, stretching of scar tissue along the urethra or clearing up a cystitis due to post-gonorrhea infection or a non-specific infection, are measures which have brought spectacular results.

Surgical procedures are definitely indicated in instances where there exists a pin-point meatus, a long adherent foreskin, valves in the urethra, hydrocele, hematocele or warty excrescences on the glans penis. Recently, I saw a case of impotency for which the patient had received considerable treatment. On examination, I found that he had a tiny meatus, and without any hesitation I injected some local anesthetic and performed a meatotomy. Two days later, I examined the bladder and urethra with a cystourethroscope and found that he had a moderate-sized papillomatous growth on the edge of the trigone which floated back and forth within the internal urethral orifice. The subject of impotency immediately faded out of the picture and the neoplasm was attended to. What I am emphasizing is that no man should be treated for lessened sexual power unless

he has had the benefit of a cystoscopic and urethroscopic examination. On one occasion, I found a bladder stone which was keeping up an inflamed posterior urethra by periodically rolling back and forth and making urination painful and coitus impossible.

Ligation of the superficial and deep dorsal penile veins has no appreciable effect on the erectile power. A physician recently asked me to perform this operation on himself. He felt certain that it would help him because, as he stated, "when I grasp the base of the penis and compress the vein, an erection ensues." In compliance with his request, I ligated the superficial vein and as I prophesied, no visible effect ensued. The causative factors—stricture of the posterior urethra and an accompanying seminal vesiculitis—are now being treated.

Awakening of lost sexual power by the alleged rejuvenation operations of Steinach have been loudly advocated. Years ago, when surgeons treated prostatic enlargement by vasoligation, no one made mention of any rejuvenating effects brought about by this procedure. It is only since prostatectomy was practiced that vasoligation seems to have benefited the fading power of aging men. In my opinion, tying off the vas brings about a feeling of rejuvenescence in only those cases where there exists a stagnation within the seminal vesicles. Some cases of chronic vesiculitis are cured in this manner and the improvement is attributed to an increased activity of the interstitial cells of Leydig.

Gland transplantation, which was inaugurated by Lydston, agitated the public as well as the profession for several years, but produced no tangible results. This spectacular procedure has, I believe, seen its heyday.

Concerning the use of mechanical contraptions to insure erection, I can only say that I have yet to hear a favorable report from one who has used such a contrivance.

Recently, Lowsley introduced an operation which consists in shortening the bulbo—and ischio-cavernosi muscles. In a selected group, the early results were favorable in a fair proportion of cases. Sufficient time has not yet elapsed to estimate the permanency of the improvement.

Psychic Impotency

Sexual disorders which we now classify as psychic impotency were formerly regarded as end-results of physical defects. That prevalent disorder, premature ejaculation, was treated on the basis that pathological changes were responsible for this weakness. Since we have regarded ejaculatio præcox from the psychopathologic viewpoint, much progress has been made in the amelioration of this embarrassing ailment. While some physical elements play a part in the so-called functional derangements, the main disturbance is within the psychic sphere.

A comprehensive understanding concerning the genesis of sexual fear is essential to the proper management of psychic impotency. Practically all individuals are dominated to a greater or lesser extent by sexual fear during their developmental period. Dread of things sexual is dissipated gradually on reaching maturity. Our civilization, by its rigid moral tenets, tends to inculcate an abnormal fear of the sexual component of life. Many children are frightened in their teens about sexual matters and these unpleasant memories lie dormant in their unconscious minds ready to dampen their sexual ardor when it blooms into fruition.

Most youths on first experiencing nocturnal emissions (pollutions) believe that this activity is due to impurity in thought. By the dissemination of sexual hygiene information, we have tried to make known to the immature lad that there is nothing sinful in this natural process, which is merely an indication that sexual maturity has begun.

Our energies in this direction have been thwarted by the vast amount of literature which somehow or another finds its way to those who are perplexed by sexual problems. Nor has all this literature emanated from quack sources. Practically every home library has its antiquated home medical adviser, which usually contains a chapter on the evils to which the flesh is heir. These accounts are quite harrowing, particularly those which stress the penalty for indulgence in masturbation. Many other sources of scare literature exist, all of which tend to depress the lad who needs help.

A second cause of sexual fear is due to the Œdipus-complex, a condition developed by love rivalry in the home. The condi-

tion implies a too firm attachment of a son to his mother, so that the mature male has a difficult time diverting his attention to a feminine sexual object other than his mother.

Castration complex, or the fear of losing one's sexuality by sexual indulgence, is an unconscious psychic factor that operates to ingrain fear. Often, little boys are told that their sexual organ will wither or drop off if they touch the penis for improper purposes.

Frustration of normal sex activity often results from false education and teaching that normal sexual activity is bestial. Those who have been overly impressed with this thought that the sexual function is degrading have a difficult time in properly asserting their male characteristic at the proper time.

Recognition of psychic impotency is usually not an easy matter. The subject may complain of vague pains in the penis, urethra, prostate, bladder, perineum or scrotum. He may think that his organ is too large or too small; that the veins on or within the scrotum are too large; that an unusually strong odor emanates from his genitalia; or that a small quantity of mucoid discharge from his meatus is the underlying cause of his sexual weakness. When the urologist's attention is directed toward the genitalia, the recognition of sexual neurosis is relatively simple.

In this short paper, I can merely hint at some of the other manifestations of psychical impotence. The symptoms are out of all proportion to the supposed causative factor. Intense emotional upset is associated with the symptom-complex which is presented. Vague neurotic pains are complained of. These are of shifting character. The subject shows indications of a marked feeling of inferiority.

The physiology of the sexual neuroses is difficult to comprehend because it is so intimately related to the complicated sympathetic nervous system, the workings of which are just becoming intelligible to us. One might compare the state of sexual fear to that of stage fright. The speaker who is dominated by fear is embarrassed and is unable to use his organs as he normally would. He perspires and loses all control. Merely standing up before an audience induces a state of physical instability. The

heart beats rapidly and self-possession is lost. Mosso, the Italian physiologist, and Crile, the surgeon physiologist, have emphasized the relation of fear to organ derangement. Sexual fright can deflect the course of blood just as ordinary fright, which explains why those individuals who are unduly sensitive to emotional disturbances may lose their potency at the most inopportune moment.

The various psychological schools present interesting theories concerning the causative factors which lay the foundation for the development of psychic impotency. Freud considers the incest barrier as the psychic deterrent to normal expression in *ejaculatio præcox*. Abraham believes that the precipitate emission of semen is the male's mode of expressing disgust. Stekel regards this form of sexual weakness as an indication that the sexual inhibiting forces are stronger than the aggressive urge. The school of individual psychology states that sexual incompetency is the end-product of guilt feelings. My view is that it results from various types of fear which in turn induce involuntary contractions of the ejaculatory musculature.

Frigidity can induce a state of impotence. The female may display an infantile attitude toward sex by such signs as vaginismus, genital hyperesthesia, hypersensitivity or apparent indifference. All these conditions act as barriers to coitus. It may be caused by psychic trauma, an asocial attitude, or be a symptom of anxiety or a dislike of copulation on moral or esthetic grounds. Without the display of impulsiveness on the part of the female, there will be little reciprocal stimulation in the male.

One of the reasons for the slow permeation of sexual psychology into the several regular departments of medicine, and urology in particular, is due to the dense screen of almost incomprehensible terminology which the psychologists use to define the sexual activity of man. To Adler we owe a debt for the simplification of complex and involved theories and to the psychobiologists for their commonsense, everyday English which they employ in defining abnormal states of being. Quibbling among the various schools of psychology has tended to create a language which even adherents have difficulty in understanding. The term "libido" means one thing to one group and

something else to another. Everything that transpires in the psychic world can be made intelligible to the practitioner with the average I. Q.

To uncover the etiological factors of a sex neurosis or a case of impotence, we first must obtain a good history. The mode of history taking is entirely different from that employed in a urological examination. Urologists, after a quick survey of the early diseases of childhood and the like, proceed to inquire into the localization of pain, urinary frequency, venereal history and the like. A form history is of no value in cases of impotence. Every phase of the individual's life is considered. One should merely request the patient to talk about himself and at first the physician's task is merely to listen. At the same time he must keep his ears open for points which appear to have a bearing on the development of the malady. If the patient is permitted to talk himself out, so to speak, he will ultimately uncover sources of repressed material. During the first few sessions, the patient will present a plausible tale, and will make every effort to show his weaknesses in their best light. As the resistance of the patient wears away, he will become more confidential and will unearth his inner secrets. A seemingly true initial confession may merely be the revelation of the upper strata of a troubled conscience.

When the confidence of the diffident male has been completely won, the physician begins to interject queries which will open up new vistas of thought. At length a prospectus of the patient's social and sexual life will have been unfolded.

This unburdening process has a marked beneficial effect. Our next procedure is to discuss frankly the pet worries of the patient so as to wash away the fears which have beset him and have served to deflect his amatory assertiveness. Masturbation is but one of a long list of so-called sins

which engender a guilty conscience. One cannot dismiss the masturbation bogey by merely brushing the matter lightly aside. By sound logic, we must show the patient that the evils which he attributes to evil indulgence have not injured his sexual constitution. It is the fear of consequences attendant upon self-gratification which causes so much harm.

The ignorance of the average man in sexual matters is appalling. No one knows this better than the urologist. We must give them knowledge in a deft and inoffensive manner. These patients are extremely sensitive about their disability and must not be offended. Once the trick is learned of coaxing the patient to repose the utmost confidence in his physician, the most involved cases can be unraveled and cure is obtainable.

In many instances, we must alter the pattern of the patient's life. This is accomplished by the employment of psychobiological principles. The designation "psychobiology" pertains to the utilization of any aid which the several branches of medicine may offer, as well as that knowledge which is obtainable from the sciences or arts. There are no rigid rules which must be adhered to. The scope is broad and elastic. By the use of suitable measures, an asocial man may evolve into a social person and thus an asexual male can be converted into a sexual being.

An air of hopelessness envelops practically all patients with psychic impotency. Physicians unfamiliar with the sordid viewpoint of the impotent will be overwhelmed, at first, with the patients' depressive attitude and tone of despair. To listen to their tales is at times wearying, and I can assure you that the management of a single case of impotency may entail more grief than several major urological operations. If, in the end, we manage to save a man's life and his respect, it will be time well spent.

THE TREATMENT OF COMPOUND INJURIES WITH PARTICULAR REFERENCE TO THE HAND*

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Rather than read a formal paper and without wishing to make dogmatic and absolute statements I would like to discuss with you in a very informal way the broad problem of treatment of injuries, and in a little more detail the treatment of injuries of the hand. Needless to say, the surgical principles involved are identical, whether the injury involves the hand or some other part of the body.

A word should be said at the outset concerning first aid. Much commendable and worthwhile effort has been exerted to inform the layman concerning the problems of medicine and surgery, but the advice given is sometimes confusing and based on illogical premises. If I could say in a few words what would seem to me ideal first aid treatment it would be:

(1) Expose the open wound widely, if necessary by cutting away the clothing around it. (2) Cover the wound with a sterile dressing. (3) Bandage it snugly to stop bleeding. (4) Immobilize the part by the simplest method available. (5) Get the patient to the doctor immediately. In other words protect the wound, but *leave it alone*.

From that time on the care of the wound becomes the surgeon's problem. His first responsibility is to determine as completely as possible the extent of injury, not by an examination of the wound, but of the patient. There seems to be an overwhelming urge on the part of the unthinking individual to examine the wound, to probe it or to put tension on injured structures. He must convince himself by seeing and feeling torn tissues that an injury has actually been sustained. The thoughtful surgeon knows that such examination is a waste of time, causes suffering and pain and rarely gives helpful information because of the distortion and discoloration of all the tissues involved.

The questions one can usually answer with certainty from an examination of the patient are:

(1) Has there been a fracture? (2) Has there been a nerve injury? (3) Has there been a tendon injury?

To elicit the presence of sensation in the area of median nerve distribution, for ex-

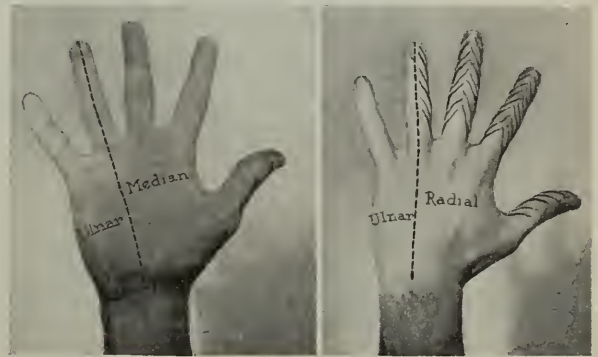


Fig. 1. The sensory distribution of the median, ulnar, and radial nerves in the hand. Loss of sense of pain and touch indicates that there has been a crushing, tearing, or division of the nerve supplying the affected area. (Surg., Gynec. & Obst., 52:594, 1931.)



Fig. 2. Adduction of the fingers toward the middle finger (a), abduction of the fingers from the middle finger (b), and abduction of the thumb toward the hand (c) are carried out by the interossei, the muscles of the hypothenar eminence and the adductor pollicis, all of which are supplied by the ulnar nerve. (Surg., Gynec. & Obst., 52:595, 1931.)

ample, requires but a moment, but no amount of probing of a penetrating wound will give exact information as to the presence or extent of such an injury (Figs. 1, 3).

Having determined the extent of injury, the next problem is care of the wound. The question as to the best method is a controversial one, but these facts, based on a

*From the Department of Surgery, Northwestern University Medical School. Read before the Wayne County Medical Society, Detroit, Michigan, March 14, 1938.

considerable experience, seem to me incontrovertible:

1. Injuries are often more serious than the hasty examiner suspects.



Fig. 3. (a) Flexion at the metacarpophalangeal joints is produced by the lumbricals and interossei. (b and c) With injury or division of the median and ulnar nerves below the middle of the forearm the power of flexion at the metacarpophalangeal joints is lost; the finger can still be flexed at the interphalangeal joints by the long flexor tendons. (Surg., Gynec. & Obst., 52:595, 1931.)

2. Failure to prepare a sufficiently wide area about the site of injury and inadequate assistance often make it difficult to maintain good technic.

3. A patient who suffers pain is difficult to control. Particularly when an extremity is involved he may make some sudden movement that completely nullifies one's efforts to maintain a sterile field and to do accurate surgical work.

4. Repair of injuries of the extremity requires a bloodless field; and maintenance of the required constricting pressure of 250 mm. of mercury soon becomes extremely painful for the average patient.

For these reasons we have come to adopt the following routine for all cases in which more than a simple cutting injury of superficial tissues has occurred. When the examination is completed the patient is sent to the operating room, the blood pressure cuff which is to serve as a constrictor is applied and an anesthetic given. Nitrous oxide or ethylene is preferred. The member of the operating team who first finishes scrubbing his own hands prepares the field of operation. After putting on sterile gloves he washes a wide area about the site of injury with soft cotton, plain white soap and sterile water. The dressing over the wound is undisturbed until the area about the wound is cleansed. Then the dressing is removed and the wound itself carefully cleansed with soap and water until we are

satisfied that it is as clean as it is possible to make it. If bleeding begins when cleansing of the wound is begun the arm is held up for a moment or two and the blood



Fig. 4. (a) If the proximal phalanx of the thumb is held fixed, active flexion at the interphalangeal joint is due solely to the contraction of the flexor pollicis longus. If tendon is divided the thumb remains in extension. (b) After division of the flexor profundus; flexion at the proximal interphalangeal joint is possible if the flexor sublimis is still intact, but the finger remains extended at the distal interphalangeal joint. (c) If the flexor profundus is intact the finger can be flexed at the distal interphalangeal joint. (Surg., Gynec. & Obst., 52:595, 1931.)

pressure cuff inflated. The soapy solution is finally washed away with a generous amount of sterile salt solution.

After the sterile linen has been arranged the operative procedure indicated is carried out. The ideal we constantly strive for is primary repair and closure of the wound. This is not always possible or wise; but it is my belief that if a patient is seen immediately after an injury has been sustained, if the wound is not the result of a crushing injury, and if there has not been extensive loss of covering tissue, it is usually possible by patience, careful cleansing and gentle handling of tissue to convert a contaminated wound into a clean wound, to repair the injured structures and close the wound (Fig. 6).

Each of the conditions mentioned is important. An open wound left untreated remains a contaminated wound for a few hours only. As bacteria invade the tissues the stage of infection develops. When infection has begun, any operative procedure beyond cleansing of the surface carries with it the risk of spreading infection widely and rapidly. Secondly, severe crushing wounds are not susceptible of immediate repair, for it is often impossible to determine the extent of tissue damage at the first examination. Careful wound cleansing,

with immobilization and watchful waiting, is less likely to prove disappointing than the attempt to repair tissues whose vitality is in question. Thirdly, if the covering tis-

procedure. It is better first to secure closure of the wound, and when that objective has been accomplished to repair the deeper tissues.



Fig. 5. (a) "Drop wrist" of musculospiral or radial nerve injury. (b) Loss of power of extension of the fingers due to injury or division of the extensor communis digitorum. (c) With the proximal phalanges supported, the fingers can be extended by the action of the lumbricals and interossei even though the common extensor is divided. (d) Loss of power of extension at the distal interphalangeal joint due to division of the extensor tendon opposite the joint or avulsion of the tendon from its insertion on the distal phalanx. (Surg., Gynec. & Obst., 52:596, 1931.)



Fig. 6. Result of immediate repair of injury which had caused complete division of median and ulnar nerves and of all the long flexor tendons of fingers and wrist. This patient wore the splint pictured constantly for a year after injury so as to avoid tension upon the lumbrical and interosseous muscles while regeneration of the divided nerves was taking place.

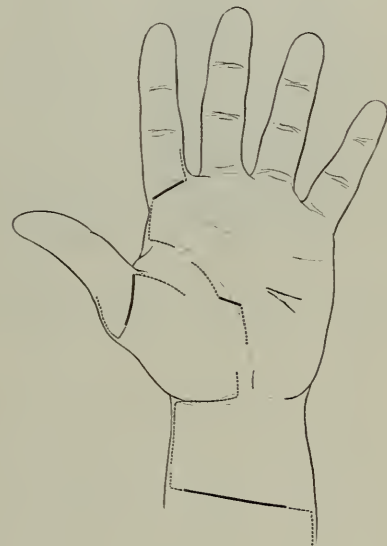


Fig. 7. Incisions (dotted lines) for securing adequate exposure of injured structures. Solid black lines represent wounds of common occurrence. Incisions should not be made across the wound which has resulted from the injury.

sues have been lost as the result of avulsion or a shearing injury it is unwise to attempt repair of deeper structures, and then cover the open wound with grafts or by a plastic

It is hardly necessary to emphasize the fact that unless one is willing to exert every possible effort to cleanse the contaminated wound, to avoid trauma, and to carry out repair of injured tissues and closure of the wound with exacting care, it would be far better simply to cleanse the wound, immobilize the part, and permit healing to take place as rapidly as possible. Excellent results can still be obtained by repair after wound healing has taken place, but no

amount of surgical judgment or skill can compensate for the destructive and crippling effect of the infection which can so easily result from inadequate or indifferent treat-

constriction of the blood pressure cuff is then released to make certain that no active bleeding is present. When bleeding is arrested the pressure is reapplied and contin-



Fig. 8. Aluminum splint for maintaining hand and fingers in the position of function. It can be sterilized and incorporated in the dressings during the stage of acute inflammation; it can be covered with felt and provided with straps for easy application and removal during the stage of convalescence. (*Internat. Abstr. Surg., Surg., Gynec. & Obst.*, p. 106, (Feb. 1) 1938.)

ment immediately after an injury has been sustained.

It is often necessary to enlarge the original wound to secure adequate exposure of injured tissues (Fig. 7). A transverse cut across a finger or across the wrist can be extended proximally from one side and distally from the other, and so permit wide exposure by a simple extension of the original wound. A median incision over finger or wrist always leads to flexion contracture. If the surgeon's incision crosses the wound of injury transversely it makes wound healing by primary union difficult of achievement.

It is not necessary to discuss the exact technic of fracture reduction, of tendon repair and of nerve suture. I would simply say that when repair of the deeper tissues is to be carried out the structures affected are first identified and isolated so that one knows exactly what needs to be done. The

ued until wound closure is complete and the pressure dressing applied.

In repairing tendons we handle them gently, put tension on them only with moist gauze, and suture them with silk. Nerves are handled with the same care, and suture is carried out with the finest silk obtainable threaded on swaged needles. The suture catches only the perineurium and never enters the substance of the nerve.

When repair of the deeper structures is complete the fascia is accurately united with fine silk sutures and the skin wound is accurately closed. No drains are left in the sutured wound.

It has been suggested above that when loss of covering tissue has taken place repair of injured deeper structures should be postponed. Time and function, however, can be saved, and long continued infection and formation of crippling scar tissue avoided if such wounds are closed at the

CASE HISTORY

primary operation. A graft of intermediate thickness, a full thickness graft or some type of flap may provide the best solution in any specific case, but, if it is in any way possible the wound should be closed, and without excessive tension. If relaxing incisions are made to permit skin edges to come together without tension the raw surfaces left at the site of the incisions should be immediately covered with razor grafts and not left to heal by granulation and scar formation.

Finally the injured part should be im-

mobilized in such a position as to relieve tension on injured tissues and put them at rest. Just as fractured bones, fractured tendons, nerves and soft tissues require reduction and immobilization in such a position that no undue strain is put upon any of the fragments (Fig. 8). Unless this is done, and particularly with fractured tendons, either the suture will give way completely, or it will cut through the ends of the tense tissue; in either case separation takes place and no helpful result is accomplished.

CASE HISTORY

It is suggested that the reader peruse this case history carefully; come to his own conclusions, and then turn to page 56 for a discussion of the same.

History.—G. P., a married white woman, aged twenty-nine, entered University Hospital on August 30, 1938, complaining of pain when she moved her eyes, and swelling of the eyelids. On two occasions early in August, 1938, she had sampled liberally of uncooked meat loaf containing pork. On August 26, she noted burning of the eyes and a headache. Two days later it was difficult for her to move her eyes because of pain and the following day (August 29) her eyelids became "swollen shut." Chronic constipation was present at the time of admission.

The systemic, past and family histories were not contributory to her present illness.

Physical Examination.—Physical examination at the time of admission revealed a well developed and well nourished white woman who appeared moderately ill. Her temperature was 101.8, pulse 120, and respirations 30 per minute. There was moderate edema of the eyelids bilaterally; most marked above, this was also present in the conjunctivæ. The ophthalmoscopic examination showed no abnormalities. There were hypertrophic septic tonsils. The chest and heart examinations were not abnormal. There were no palpable abdominal visceral enlargements. Muscular tenderness was not demonstrable. Neurological examination was normal.

Laboratory Data.—The blood Kahn reaction was negative. The urine showed no abnormalities. The

admission blood studies showed a hemoglobin 88 per cent (Sahli); R.B.C. 4,410,000; W.B.C. 10,900 and a differential of 75 per cent neutrophils, 5 per cent eosinophils, 18 per cent lymphocytes, and 2 per cent monocytes. Subsequent blood studies showed a rise of the eosinophils to 37 per cent with a 21 per cent value at the time of discharge, the total W.B.C. being 8,500 at that time. No parasites were found in the stools. The blood sedimentation rate was slightly elevated on admission but fell to normal before discharge. The skin test with trichina antigen (1-10,000) showed a positive reaction within five minutes. The blood precipitin reaction for trichinosis was positive up to and including dilutions of 1:800. E.K.G. examinations were not abnormal.

Clinical Course.—On September 9, there was soreness of the muscles of her neck, upper and lower extremities, at which time the edema of the eyes had disappeared. Her temperature ranged between 101 and 102.8, falling by lysis and reaching normal by the 13th hospital day. Before discharge a tonsillectomy was performed. The microscopic examination of the pharyngeal muscle tissue obtained showed small foci of interstitial myositis with areas of eosinophilic infiltration as well as encysted trichinæ. At the time of discharge she was entirely asymptomatic.

HISTORICAL ASPECTS OF IRON THERAPY IN ANEMIA: CHAIRMAN'S ADDRESS

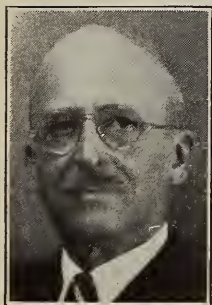
While iron has been prescribed for almost three centuries, its therapeutic use is far older than the rational explanation of its action, and opinion concerning its value has changed greatly from time to time. Russell L. Haden, Cleveland (*Journal A.M.A.*, Sept. 17, 1938), reviews the most pertinent clinical literature on the subject. The most recent development in iron therapy has been the renewed emphasis on the greater potency of ferrous salts. While any iron preparation is effective if given in large enough doses, very much less of the ferrous compounds needs to be taken. Thus the two fundamental principles of iron therapy, large doses and the use of a ferrous salt, now generally accepted, only confirm what Blaud, Niemeyer, Immerman, Osler and others thought and practiced. These principles, forgotten by clinicians for many years, have only recently been learned anew. Such rediscoveries emphasize again our debt to the great clinicians of the past.

TREATMENT OF SOME COMMON DISEASES OF THE SKIN*

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The following remarks on the treatment of diseases of the skin may not accord fully with the views of some of my colleagues, as they are based almost entirely on personal experience. My discussion will include the treatment of some inflammatory diseases, infectious granulomas and pyogenic infections.

Acne vulgaris responds well to treatment as far as disappearance of the lesions is concerned. I know of no satisfactory method, however, of treating pitted scars that occur in the severe cases. In at least 85 per cent of the cases, a permanent cure can be obtained by fractional doses of roentgen rays, given at weekly intervals for three to four months. It is always advisable to warn the patient that, after such therapy, scars may be present and that these are due to the disease itself and not to the treatment. Ultraviolet therapy is of some value in persons who tan easily, but its effect is more or less temporary. Soap frictions and sulphur lotions, combined with mechanical methods, are time-honored procedures which suffice for the treatment of mild cases. Vaccine therapy, in my opinion, is worthless, though such treatment is still widely employed by the general practitioner. Diet is also of little value. Hormonal therapy is theoretically indicated but up to the present its results have been unsatisfactory. It is still in the experimental stage.

Rosacea is a common disease, especially in women, and requires internal treatment primarily. It occurs mainly in persons of middle age who lead a sedentary life and particularly those who suffer from indigestion. A trial of dilute hydrochloric acid is always indicated and is followed, at times, in several weeks by astonishing improvement or recovery. The general treatment can be summarized by getting the patient into the best possible physical condition, into "training" in other words.

The severe type of rosacea (rhinophyma), consisting of large hyperplastic nodular swellings of the nose, occurs entirely in men. It is not necessarily due to the excessive use of alcohol, though this is often

an important cause. The milder types of rhinophyma can be improved by scarification, though few patients are willing to submit to this treatment. It produces results, however, without appreciable scarring. The large noses with lobulated masses, can be destroyed by electrodesiccation under local anesthesia, or can be surgically excised under general anesthesia. The nose is practically whittled down like a stick to the normal size and healing takes place in about five weeks without the intervention of skin grafting.

For the treatment of poison ivy dermatitis, nearly every physician has his pet remedy, the chief value of which is to lessen itching and edema. These remedies do not materially shorten the course of this self-limited disease. Immediately after exposure to one of the poisonous rhus plants, soap containing free alkali, such as laundry soap, is indicated for the hands or other parts which have come in contact with the plant. Later, cold, wet dressings of boric acid are useful to reduce swelling, after which the ordinary calamin lotion (using pure lime water and no phenol) can be applied. While the disease cannot be aborted as a rule, prophylactic treatment has, I think, been proven to be of value. This can be given as intramuscular injections of poison ivy extract for several doses at intervals of a few days or the tincture of rhus toxicodendron may be given by mouth, beginning with a few drops and increasing daily till a dram is reached. The patient

*Read before the Seventy-third Annual Meeting of the Michigan State Medical Society, Detroit, September 22, 1938.

may then continue to take a teaspoonful of the drug once daily during the poison ivy season.

The treatment of bromoderma is a simple matter as soon as the correct diagnosis is made. If the characteristic acneform pustules or granulomatous masses are suspected of being due to bromides, the suspicion may often be confirmed by a history of having taken the drug. Many patients do not consider soda fountain remedies to be drugs and it is always wise to ask directly whether bromo-seltzer has been taken. I have photographs of two severe cases of bromoderma due to long-continued use of this nostrum. In one case the eruption had been present for four years without recognition of its true nature. Withdrawal of the drug is followed by disappearance of the eruption, though this is often slow. To expedite a cure, the patient may be given physiologic salt solution intravenously in doses of 100 c.c. at intervals of a few days, three or four times. This procedure also makes it easier to demonstrate bromine in the urine.

A single attack of herpes simplex, whether on the lips or genitals, is of little consequence. When, however, the disease recurs every few months for years, it becomes a problem of some importance. I have recently seen a woman who had had recurring attacks of herpes of the neck four times a year for twenty years. Each attack was accompanied by three or four different groups of vesicles. A simple method of treating such cases consists of inoculations of smallpox vaccine once a month for four consecutive months. In a reasonable number of cases this method is successful, favorable results occurring whether or not the vaccine "takes." In a report to be published later, Dr. Richard Kelly states that he has been able to abort attacks of herpes by intradermal injections of Moccasin snake venom. He also found that the attacks were less frequent after this treatment. In a few cases of recurrent herpes, I have seen a complete cessation of attacks after several roentgen-ray exposures confined to the affected areas of the skin.

Herpes zoster is a self-limited disease which rarely recurs. I know of no means by which its course can be shortened. All we can do is to lessen pain, attempt to prevent scarring and pay close attention to the cases which affect the eye (herpes ophthal-

micus). Zoster apparently causes no pain in children under ten years of age. Pain is often severe in elderly people and may persist even for years after disappearance of the eruption. I have seen some favorable results in controlling pain by the use of pituitrin, though my experience with intravenous use of iodides as recommended by Ruggles has not been satisfactory. Years ago I found that pain could be controlled by paraffin sprayed on the affected skin by a special atomizer or simply dabbed on the parts, which were then covered by a voluminous layer of absorbent cotton held in place by a bandage. In the cases which I reported, the pain was usually relieved at the end of 24 to 48 hours. Caution was necessary, however, in removing the cotton to avoid rupture of the vesicles. Zoster ophthalmicus is always alarming, though it is rarely followed by permanent injury to the eye. Every case of this type should be seen by a competent ophthalmologist.

In treating psoriasis, one may often obtain temporary results, though it is always difficult, in extensive cases, to remove every vestige of the eruption. The treatment can be summed up by the words "soap and water, grease and sunshine." Curiously enough, some physicians do not realize that soap and water are nearly always indicated in psoriasis, especially for removal of scales. The best remedy is natural sunshine for persons who are able to acquire a tan. As long as the skin remains tanned, such persons will be largely free from psoriasis. Unfortunately, ultraviolet rays from artificial sources are not as efficacious as the sun's rays. A fairly satisfactory method, however, of using ultraviolet rays from quartz lamps, consists of an application of crude coal tar at night, which is then removed, followed the next day by irradiation (Goeckerman method). Among the various reducing drugs, chrysarobin has held a high place for many years and is best used in ointment form. Whenever an intensive action is desired, the ointment should be applied to the skin and covered by an impermeable substance, such as oiled silk. This is specially indicated for thickened patches on the legs, where even prolonged exposure to the sun's rays may not cause the patches to disappear. The use of chloroform or traumaticin as vehicles for chrysarobin is much less efficacious than ointments (of

vaseline or lanolin). For the past few years, I have used the proprietary remedy, anthralin, rather extensively and prefer it to chrysarobin. It has been found by Cornbleet to be a stronger reducing agent and is somewhat less disagreeable than chrysarobin.

Lupus erythematosus is still an obstinate disease to treat, though the introduction of gold salts has somewhat simplified the problem. The favorite preparation in this country is gold sodium thiosulphate, the initial dose of which should be 5 to 10 mg. The maximum dose should never exceed 50 mg. in my opinion, if disagreeable reactions are to be avoided. The drug is given intravenously at weekly intervals for weeks or months, if necessary. Small areas, which are refractory to intravenous therapy may be treated intradermally, as suggested by Traub and Monash, the results being surprisingly good at times. Intramuscular injections of bismuth may be used in place of gold salts, but in my experience their action is slower and somewhat less satisfactory. My results with quinine bisulphate, in a small number of cases, have been disappointing. The aforementioned methods apply only to the fixed type of the disease. The treatment of the disseminate type of lupus erythematosus is unsatisfactory.

The treatment of pemphigus vulgaris in adults is extremely discouraging as the disease is nearly always fatal within three to eighteen months after onset. New remedies have been enthusiastically suggested from time to time but have thus far been dismal failures. The Davis method of giving arsenic and an extract of blood platelets on alternating days and treatment by large doses of viosterol have largely been discarded. The profession is now experimenting with germanin, a drug that is dangerous, especially from its action on the kidneys. I have not been favorably impressed with its use in pemphigus. The best local treatment consists of greasy applications, such as boric acid ointment. The dry method of using dusting powders usually fails. Until we know more about the disease, which is possibly due to a filterable virus, pemphigus will continue to be largely a problem of nursing.

Sycosis vulgaris, of staphylococcic type, has long been the *bête noir* of dermatologists. Even epilation by roentgen rays fails to cure some of the cases. The recent intro-

duction of the proprietary remedy, compound quinolor ointment (Squibb) has enabled us to cure many cases of this obstinate disease. It is often necessary to continue the use of this ointment for months after the disappearance of the eruption, due to its tendency to relapse. This remedy is also of value in cases of staphylococcic folliculitis that occur on the limbs, especially in hairy persons. If sycosis vulgaris (bearded region) is to be treated by roentgen rays, this agent should be applied in epilating doses. The practice of giving a series of a dozen or fifteen fractional doses at weekly intervals is usually followed by failure.

Of the various types of tuberculosis of the skin, lupus vulgaris, as its name implies, is the commonest. It is a serious disease, due to its chronicity, its tendency to disfigurement and its possibility of dissemination, and death. Lupus is poorly treated in this country, due to the lack of special hospitals similar to the Finsen Institute abroad. The mercury vapor quartz lamps are, unfortunately, poor substitutes for the large Finsen lamps. When the disease is seen early and consists of one or two small patches, the proper treatment, in my opinion, is excision. Great improvement, though not a cure, may be obtained by a salt-free, high-vitamin diet. The roentgen rays are useful in hypertrophic and ulcerating types of lupus vulgaris and also for scrofuloderma and the verrucous type of cutaneous tuberculosis. The best treatment for papulonecrotic tuberculide is the administration of antisyphilitic remedies, including arsphenamin or allied drugs and bismuth. This is highly recommended by Darier, with whose opinion I heartily concur.

The treatment of a furuncle should include advice to the patient not to squeeze or otherwise traumatize the lesion. One of my patients, suffering from two large boils of the face, disregarded this advice and, as a result, suffered from a metastatic abscess of the prostate gland, which occasioned an illness of two months' duration. Attempts to abort furuncles have rarely been successful in my experience. For the treatment of a succession of boils (furunculosis) I always advise a trial of vaccine therapy. In my experience, this has usually been successful when properly carried out. The proper procedure is to use a tuberculin

syringe and give one minim as the initial dose, gradually increasing doses to be given every five days, for eight to ten injections. If new boils appear during the course of treatment, the dosage should be lowered. Furthermore, I think stock vaccines are usually as efficacious as autogenous ones. I am now convinced that dietetic treatment has little or no value, except in frank cases of diabetes. It is rare to find any change in the sugar content of the blood in the vast majority of cases of furunculosis. In fact, satisfactory results were obtained by Tauber in a large series of patients who were purposely given a high carbohydrate diet.

Impetigo contagiosa is most often treated in this country by ammoniated mercury ointment in 5 to 10 per cent strength, although some persons are sensitive to this drug. Under any circumstances, this should not be used immediately before or after iodine has been applied as the resulting mercuric iodide is extremely irritating to the skin. Painting the areas (after removal of crusts) with silver nitrate is effective but temporarily disfiguring. The same is true of various dyes such as gentian violet and brilliant green (1 per cent aqueous solution). Alibour water is highly recommended by Darier and consists of copper sulphate grm. 2, zinc sulphate grm. 7 in camphor water, grm. 300. A tablespoon of this stock solution is added to a glass of water for external application every hour. This remedy is effective though its application is somewhat time-consuming.

Sulfanilamide has proven to be an invaluable remedy for erysipelas and has entirely supplanted the use of anti-streptococcal serum for the treatment of erysipelas in Bellevue Hospital. A voluminous literature has already appeared on the use of this new contribution to chemotherapy. Striking results were recently reported by Chargin from the use of sulphanilamide in chancroid. In my recent service in Bellevue Hospital, I also observed some astonishingly good results, particularly in chronic phagedenic types of this disease.

The treatment of common warts would supposedly be an easy matter. This is by no means true if the lesions are to be removed with little or no scarring or pain. Roentgen rays are successful in only a minority of cases, but are worthy of trial when the lesions involve the nail folds. I am opposed to treating common warts by electrodesiccation, which is apt to leave scars. The best method, I think, is to freeze the lesion with ethyl chloride spray and then remove it by a sharp bone curette. The wart is removed en masse with little or no scarring. The curette is also useful in removing juvenile flat warts, which also occur not infrequently on the bearded region of men. The idea that verrucae might be caused to disappear by mental suggestion has been scientifically proven in a large series of cases by Bloch. It seems incredible that an organic lesion, known to be due to a filterable virus, could be influenced solely by the mind. I have sometimes been annoyed after favorable results by the roentgen ray treatment to think that they may have been merely due to suggestion in an impressionable person, such as a child. Juvenile flat warts often disappear in a few weeks after oral administration of protiodide of mercury, $\frac{1}{4}$ grain tablets two or three times a day. My successes with this method have been mostly confined to young patients.

As alopecia areata is a rather capricious and self-limited disease, it is difficult to evaluate remedies used for its treatment. I feel convinced, however, that intensive local stimulation is worth a trial, except in cases of complete loss of hair. Small patches may be painted every two weeks with pure phenol until they are white. For the more extensive areas, the mercury vapor quartz lamps offer a convenient and cleanly method of stimulation. Irradiation should always be given to the point of an erythema, followed by desquamation. I am thoroughly convinced, and my dermatologic colleagues will agree with me, that antuitrin is of no value in the treatment of alopecia areata or, in fact, any other type of baldness.

POLIOMYELITIS IN KENT COUNTY: STATISTICAL SUMMARY

WILLIS DIXON, M.D., and CHARLES FRANTZ, M.D.

GRAND RAPIDS, MICHIGAN

The outbreak of anterior poliomyelitis in Kent County during the late summer of 1935 was more extensive than in previous years. During the latter part of August and the early days of September, we were able to study thirty-eight cases. These cases were hospitalized and carefully watched over a period of two and one-half years.

On entrance the patients were placed in isolation. Complete blood and spinal fluid studies were made. Following the period of isolation and cessation of the acute stage, muscle tests were made and the group was periodically reexamined. The following outline summarizes the study:

Morbidity.—All cases occurred within a three-week period, the peak arriving on the sixth day. Following this day there was a slow but gradual decrease. The period extended from August 12 to September 2 (Fig. 1).

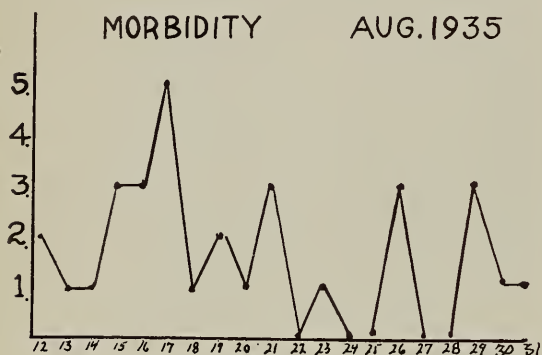


Fig. 1

Distribution.—Cases occurred equally in urban and rural areas. In two instances two members of a family presented symptoms.

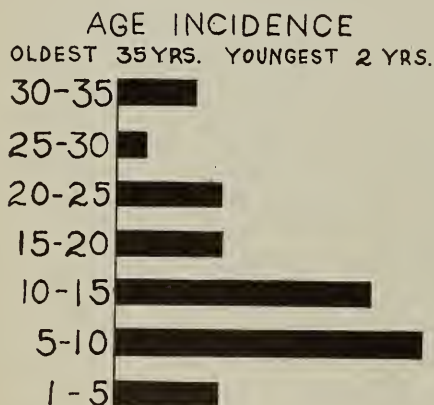


Fig. 2

Age Incidence.—Most cases occurred between the ages of five and ten years. The oldest case reported was thirty-five years; the youngest, two years (Fig. 2).

Complaint.—The complaints of the patient were carefully recorded, and in the young children the parents were thoroughly questioned as to the type of onset. The following complaints are recorded in the order of frequency:

Headache	26
Generalized aching	20
Nausea	16
Stiff neck	14
Sore throat	13
Restlessness	13
Constipation	6
Difficult breathing—Diaphoresis	3
Vomiting	2
Diarrhea	2
Photophobia	1

From this list one can readily see that headache and general malaise were almost a constant complaint.

Clinical Examination.—

Injected throat	25
Rigidity of neck	24
Rigid spine	20
Positive Kernig	12
Hyperactive knee jerks	12
Loss of abdominal reflex	8
Loss or weakness of knee jerks	8
Loss of muscle power	6
Lethargy	5
Muscle tenderness	3
Diaphoresis	3
Abdominal breathing (no intercostal excursion)	2
Photophobia	1

The highest temperature recorded on admission was 103 degrees, the lowest, 98 degrees. The average range of temperature was five degrees. At no time was there a temperature above 103 degrees. The highest pulse rate was 140, which was recorded in a case of intercostal paralysis. This case also carried a respiratory rate of 40 per minute.

Laboratory Findings.—The white blood counts varied considerably. The lowest was 3,299 with a normal differential. The high-

est recorded was 17,200 with the polymorphonuclear cells at 80 per cent and the lymphocytes at 17 per cent. The average white blood cell count was 9,365. The spinal fluid counts were as variable as the blood pictures. The lowest cell count was eight cells, and the highest 1,060 cells. The greater number of cases ran counts between 50 and 100 cells (Fig. 3).

SPINAL FLUID COUNT

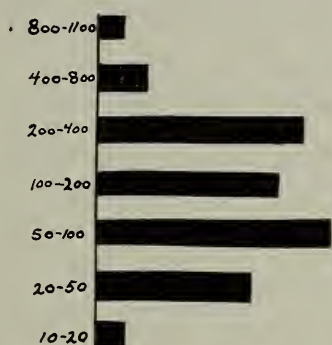


Fig. 3

Globulin was positive in twenty-three cases. The sugar content did not show any marked reaction. The lowest reading was 42 milligrams; the highest, 71.5 milligrams. In twenty-three cases the lymphocytes predominated over the polymorphonuclear cells in a ratio of two to eight. The remainder of the cases revealed the neutrophils predominating over the lymphocytes in a ratio of 5.5 to 4.5.

were immediately isolated and subjected to a spinal puncture and blood study. Sandbags and plaster of Paris splints were used where necessary. The patients received 50 to 400 c.c. of convalescent serum in divided doses. A few patients having paralysis on admission were not given serum. All patients were kept flat until the isolation period was up. They were then given muscle

SEVERITY OF WEAKNESS

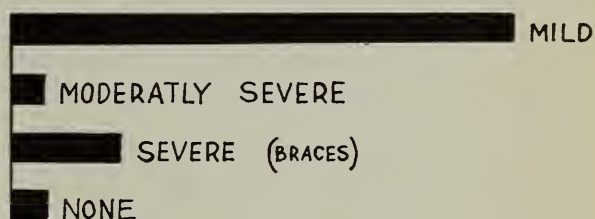


Fig. 4

tests depending upon their general condition. Those cases in which there was pain were not examined until cessation of muscle tenderness.

Distribution of Weakness.—It is extremely difficult to record in chart form the distribution of weakness. The lower extremities, back, and abdominal musculature predominated. Two cases of intercostal paralysis also presented weakness in the lower extremities.

Severity of Weakness.—After the cessation of the acute stage, the cases were arbitrarily classified as normal, mild, moderate-

PRESENT STATUS

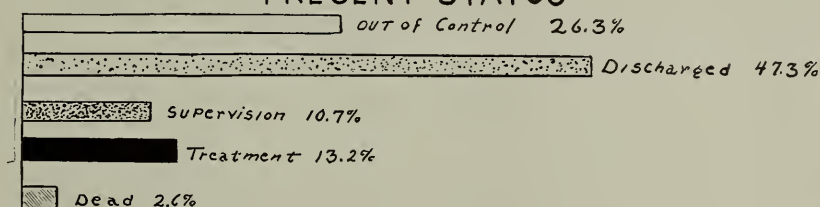


Fig. 5

In endeavoring to correlate the spinal fluid count with the white blood cell count, no constant data could be recorded. In the majority of cases both the white blood cell count and the spinal fluid count were increased, but in no definite ratio. In one case the white cells of the blood numbered 12,450 per cubic millimeter and the spinal fluid cells numbered 296; in another, the blood cells were relatively normal and the spinal fluid counted 275 cells.

Treatment.—On admission all patients

ly severe, and severe. The moderately severe cases have shown improvement and are periodically examined. The severe cases are still under active physiotherapy and continue to wear braces (Fig. 4).

Present Status.—Ten patients failed to return for reexamination. Eighteen patients were discharged from further care after a year of periodic examinations. Four patients are being reexamined every few months, particularly to watch for limp and scoliosis. This latter condition develops in-

sidiously in children with a back involvement even though it be mild. Five patients, two of whom are adults, continue to wear braces and are under active physiotherapy treatment. One patient of the bulbar type died in the acute stage of the disease (Fig. 5).

Comment

Nothing unusual or new is evolved from studying this small group of cases. However, the list of complaints and findings bring to mind the multiplicity of signs and symptoms presented in this disease. In a number of cases the diagnosis was questionable. We treated all cases as acute anterior poliomyelitis until proven otherwise. No case was finally diagnosed as encephalitis.

It is of interest to note the fallacy of the

term "Infantile Paralysis." Only in a very small per cent of the cases was paralysis present, and of these two adults were included.

One patient complained of a worm-like, hot, boring sensation under the skin, for a period of two weeks. This implied to us inflammation of the posterior horns of the spinal cord and a poor prognosis for the return of muscle function. This individual still has one flail arm and hand and a very weak shoulder girdle on the opposite side.

Rest in bed is essential. Patients were kept flat from four months to a year, depending upon the severity of the involvement. During the acute and early convalescent stages, the position of physiological rest was maintained by sandbags and plaster splints.

THE BONE MARROW FROM A CLINICAL DIAGNOSTIC VIEWPOINT*

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DETROIT, MICHIGAN

It is common knowledge that the concept of diseases of the blood has changed. As a purely descriptive title this term has served for many years to include a group of diseases characterized by changes in the cellular elements of the circulating blood. But with the impetus given by the discovery of the anti-anemic principle in liver and the investigation of its action, attention has been directed more and more from the peripheral blood toward the hematopoietic tissues, and particularly to the bone marrow. The so-called diseases of the blood are now fairly well understood to be really diseases of the blood-forming organs.

More detailed knowledge of the anatomy and physiology of these organs would throw additional light on the pathology of the disorders affecting them, and would aid materially in diagnosis. But it is only within very recent years that such knowledge of the marrow has been obtained, and it is still imperfect. Less than ten years ago, authoritative writers referred to the lack of definite knowledge of the normal anatomy and physiology of the bone marrow, but as the result of their researches,^{6,7} and others, a fairly comprehensive understanding has been attained. The prompt application of this knowledge to the study of disease states indicates how much it was needed; and the result has been that we now regard many

hematological disorders more rationally, and treat them more intelligently.

The bone marrow may profitably be regarded as a definite organ,² although it is spread throughout the skeleton. In infancy red, cellular marrow fills the medullary cavities of all the bones, but in a few years fat begins to appear. At about the age of twelve to fourteen years a patch of fat develops in the middle of the shaft of the long bones, and this gradually enlarges until in the adult there remains only one small area of red marrow near the upper end of the diaphysis. Red marrow continues to occupy the ribs, vertebræ, sternum, skull and the innominate bone throughout life, and the fatty marrow of the long bones may be quickly reconverted into functioning, cellular tissue in response to increased demand or by disease.

*Read before the Seventy-second Annual Meeting of the Michigan State Medical Society at Grand Rapids, September, 1937.

The size of the marrow is not generally appreciated. There is, roughly, half as much total marrow as there is circulating blood, and of this about half is red and half yellow or fatty. The red marrow alone is approximately equal in weight to the liver, and the reserve of fatty marrow makes possible an actual doubling in size. The capacity of the normal marrow to produce cells is enormous; it is estimated that in a healthy adult the output of red cells is about 900 billions daily.³

Microscopically, the great variety of marrow cells and their seeming lack of organization might cause one to wonder how any orderly cycle of development could be discovered. The marrow, unlike most other organs, is not composed of fully differentiated cells already adapted for their function, but contains primitive, undifferentiated forms which are constantly maturing and passing out into the blood stream. Although a detailed account of their development is out of place here, some consideration of this process is necessary for an understanding of the changes which are recognized in disease. Investigators have simplified the problem somewhat by selecting for study, situations in which new islands of hemogenesis appear in the fat, so that the number of cells is relatively few. Thus Sabin studied the developing chick embryo, and Peabody the erythropoiesis following infection.

The basic structure and growth of the marrow is simple, in spite of the appearance of the ordinary microscopic section. There are only two varieties of cells to begin with—endothelial cells, which form the capillaries, and reticulum cells, which form a fine inter-capillary network and sinusoidal spaces. All of the developing blood cells arise from one or the other of these. The so-called fat cells of the marrow are not cells at all in the physiologic sense, but merely reticular spaces filled with coalesced fat droplets. In the erythrocyte series, the youngest cell which can be differentiated is the erythrogonia, which is too immature to show hemoglobin. In succeeding generations it presents the features of the erythroblast, megaloblast, normoblast, reticulocyte and finally the mature erythrocyte. Release of erythrocytes into the circulation occurs normally at about the end of the reticulocyte stage, as is evidenced by the presence

of about 1 per cent of these cells in the circulating blood. In health the bulk of erythropoietic tissue is made up of cells at the normoblast level with relatively few of the younger forms. But the latter have almost unlimited capacity for proliferation under abnormal conditions.

In the granulocyte series, the youngest cell which can be differentiated is the myeloblast. By nuclear and cytoplasmic changes it becomes successively a premyelocyte, myelocyte, metamyelocyte, non-segmented polymorphonuclear and, finally, a mature segmented polymorphonuclear. Delivery of granulocytes into the circulation occurs normally just before and during the final lobulation process in the nucleus, so that the peripheral blood shows cells with varying nuclear forms, but only a small number of the younger non-lobulated class. The majority of the developing granulocytes in the marrow are in the myelocyte and metamyelocyte stages, with relatively few of the very young forms. But again, these young cells have tremendous capacity for proliferation under abnormal conditions.

In addition to erythrocytes and granulocytes the marrow contains small numbers of the other blood cells—lymphocytes and monocytes; also megakaryocytes—the parent cell of the blood platelets—and a few plasma cells. Any of these may proliferate to abnormal proportions in disease. Whether or not lymphocytes and monocytes are normally produced in the marrow in any significant numbers is a debated question, and unimportant for the purposes of this discussion; pathologically they are so produced.

Ordinarily, the peripheral blood reflects fairly accurately the state of the marrow. Increased cells in the circulation denote greater marrow activity, and decreased cells the opposite. Usually some change in the average cell maturity accompanies altered numbers. Thus, the ordinary leukocytosis is characterized by more young polymorphonuclears or non-segmented forms. But there is a definite threshold for cell delivery which prevents cells normally confined to the marrow from overflowing into the circulation. This is a distinctly separate mechanism from the process of cell formation and definitely separates the circulating blood cells from their tissue of origin. Very little is known of the factors which main-

tain the normal levels of the circulating cells beyond the fact that they are concerned with many of the general physiological processes of the body, and particularly with certain of the glands of internal secretion. Cell delivery may be materially changed, as, for example, in pernicious anemia and in the leukemias, where very immature cells reach the blood stream. Clinically this is important because the question as to how closely the peripheral blood reflects the state of the marrow depends very largely upon whether this "release factor" is effective or not.

Comparative data concerning the blood and the marrow indicate that in most of the major hematological disorders there is a definite correlation between the two. That is, a characteristic marrow picture exists as a counterpart of the blood picture. From experience, the state of the marrow in a given case may be inferred from the changes in the peripheral blood, but such inference will be accurate only insofar as the delivery of cells from the marrow occurs as assumed. It is obvious that when cells are retained in the marrow, no proof or even suspicion of their existence can be obtained from the blood. Although this situation is not common, it occurs often enough both with normal and abnormal cell forms to cause important diagnostic difficulties. It is the experience of everyone who sees many of the so-called blood dyscrasias that some patients show little or nothing in the ordinary blood study upon which to base a diagnosis, yet the symptoms and signs of serious disease are definite. It is no longer good medical practice to label such a case as "severe anemia" or "splenomegaly" or whatnot without trying to gain additional information from the bone marrow.

It is well to bear in mind that the ordinary blood study (cell counts, et cetera) is actually a biopsy, although a very simple one. The object is to study cellular structure and relations just the same as in any other tissue removed from the body. To carry out a similar procedure on the parent tissue of the blood is a logical step toward detecting disease at its probable source. For clinical purposes the actual technic is simple,⁸ requiring no more skill or equipment than that needed for lumbar puncture, which operation it very much resembles.

Since the sternum contains functioning,

red marrow throughout life, and is moreover easily accessible, it is the most suitable place for obtaining marrow. A short, heavy, spinal puncture needle is a satisfactory instrument, although specially designed needles may be found more convenient. The anterior cortical layer of bone is easily penetrated after local anesthesia, being only about 1 to 2 mm. thick. The marrow cavity is about 1 to 1½ cm. deep and if entered at an angle, offers plenty of leeway to avoid penetrating the posterior cortex. The marrow is fluid and easily aspirated into a syringe; but a very small amount (only 1 or 2 c.c.) should be withdrawn so as to avoid dilution by inflowing blood. The marrow so obtained is immediately mixed with an anticoagulant and from it thin smears are made which can be stained and studied exactly like those from blood. In fact, any of the procedures used for blood can be carried out with the fluid marrow, including total cell counts; but the examination of the stained film yields the most useful and important information.

Marrow may also be obtained by removing a small core of tissue by means of a trephine, and this method preserves the structural relationship of the cells. But it is technically more complicated, requires more time and manipulation for the preparation of microscopic sections and is not well adapted for repetition on the same patient. It antedates the puncture method but is now seldom used for clinical diagnostic purposes.

The use of marrow biopsy in clinical medicine is in its infancy, but already there are very definite indications for it. It may be expected to become more and more widely used as detailed information of marrow changes in disease is accumulated. At present the diseases that present a specific marrow picture upon which a definite diagnosis can be based are comparatively few; but correlation with the clinical and peripheral blood findings may be expected to increase its usefulness steadily. Among 125 cases of various hematological disorders thoroughly studied by a recent investigator,¹ the diagnosis was not settled by the usual means in twenty-six. Of these twenty-six cases marrow study furnished a definite diagnosis in twenty, while the other six remained obscure. According to present knowledge there are three groups of dis-

eases in which this procedure yields diagnostic information.

In severe anemia of the aplastic type, borderline cases occur in which questionable signs of regeneration may show in the blood and the diagnosis therefore remains in some doubt. Even though a cause for the anemia can be identified, as, for example, benzol, arsphenamine or excessive radiation, the question of possible recovery cannot be answered without knowledge of the state of the marrow. Failure of erythropoiesis sometimes occurs late in the course of several of the major hematological disorders and requires recognition at least. In these cases extreme exhaustion of all cellular elements may be found in the marrow and definitely settles the diagnosis; and since such a marrow cannot be restored to any significant functional activity, the futility of such measures as transfusion is apparent. Some instances occur, however, in which the marrow does not show what the circulating blood has indicated and may be merely hypoplastic or even normal. The difficulty lies in the altered threshold of cellular release and is much less serious. It must be borne in mind that marrow puncture is a sampling process, and since the lesions may be patchy, there is the chance that the sample is not representative. It is therefore inadvisable to base the diagnosis of marrow aplasia on only one biopsy.

It may be mentioned in passing that in certain other anemic states marrow biopsy, while not of prime diagnostic importance, may furnish useful information. It is stated that true Addisonian anemia may be distinguished from carcinoma of the stomach with blood changes resembling pernicious anemia through study of the marrow. Of course, other and usually simpler means will accomplish the same purpose. Sub-acute combined degeneration of the spinal cord, of the type seen in pernicious anemia, may occur before any change in the blood is evident, and sternal puncture may offer an earlier means of making the diagnosis in this very puzzling situation. Malarial parasites are said to be more numerous in marrow erythrocytes than in those in the blood stream. Culture of marrow fluid for the purpose of studying cell growth is at present an almost unexplored field, but one which offers great promise.

The severe neutropenias with grave con-

stitutional symptoms, loosely called "agranulocytosis," make up the second group of diseases in which marrow biopsy is of diagnostic aid. In the fifteen years since this syndrome was described, many questionable cases have appeared in the literature, and much work concerning its possible causes has proved valueless because of lack of critical analysis of the clinical and pathological findings. Marrow studies have helped to clarify our knowledge of these neutropenic states. It has been demonstrated that the peripheral neutropenia may or may not reflect the actual state of granulopoiesis, and that neutrophil formation may be normal, increased or decreased. The essential difficulty may thus relate to cell formation in some instances and to cell delivery in others. In either event marrow biopsy is the only means for determining the fact. A certain number of cases of so-called agranulocytosis have proved to be instances of aleukemic leukemia or of aplastic anemia with equivocal blood findings; and while an accurate diagnosis in such cases has no effect on the outcome, it may avoid needless confusion and the encouraging of false hope for recovery. In other instances the finding of a normal marrow will enable the physician to proceed with confidence in a favorable result.

The third group of diseases, and the one in which marrow biopsy at present shows its greatest diagnostic usefulness, includes some of the leukemias and closely related disorders. Typical leukemic changes in the peripheral blood are easily recognized and require no further investigation. But a considerable number of cases—more than is generally appreciated—do not show a diagnostic blood picture; and this is particularly true in the acute forms of the disease. Reference is sometimes made to "atypical" leukemia in which the clinical or hematological findings do not correspond to the classical description, but this is misleading because all leukemias show typical anatomic lesions. It is not the disease but certain of its manifestations which may be atypical, and it is in this type of case particularly that marrow biopsy is of diagnostic aid, for the leukoblastic tissue practically always shows characteristic proliferation, regardless of the peripheral blood findings. In one large pathological service,³ out of a total of fifty-six cases of leukemia, nine or 16 per cent

were aleukemic and none of these nine was diagnosed clinically because the marrow was not examined during life. Acute or subacute aleukemic leukemia may simulate various diseases, notably aplastic anemia, thrombocytopenic purpura, pernicious anemia and sepsis, and treatment may be correspondingly misdirected. There are rare instances of leukemia in which the lesion is confined entirely to the marrow. The chronic aleukemic myeloid form has often been confused with Banti's disease and splenectomy has been done.

Lesions of the skin as a part of the leukemic process are fairly common, and when they occur in the course of known leukemia they offer no diagnostic difficulty. But in the absence of any other definite leukemic manifestations, as sometimes occurs, a very puzzling situation may arise. Dermatologists^{4,5} have written extensively about the diagnosis of leukemia cutis and lymphoblastomas in general, in which group the nodular skin infiltrations in leukemia are classed. Clinically there may be a very close resemblance between the skin lesions seen in the various types of leukemia, Hodgkin's disease, lymphosarcoma and mycosis fungoides. Moreover, certain other cutaneous conditions such as exfoliative dermatitis, lupus erythematosus and dermatitis herpetiformis seem to bear a definite although unknown relation to leukemia, and may be preceded or followed by it. Marrow biopsy is of considerable diagnostic aid in such situations when the peripheral blood findings are inconclusive.

Clinicians have long been familiar with the leukemoid type of blood change which may occur particularly in response to infec-

tion or malignancy. There may be merely an unusually high leukocytosis in which case the resemblance to leukemia is slight. Or there may be many immature or abnormal cells in the blood which along with enlargement of the spleen or lymph glands, strongly suggest true leukemia. This differentiation has been extremely difficult at times, and often has had to rest on subsequent developments. Marrow biopsy should aid greatly in making the proper diagnosis.

Finally, it may be mentioned that tumors of the marrow, both primary and metastatic, are occasionally found by biopsy. Since these lesions are always patchy, it is largely a matter of luck, however, if they are picked up in the aspirated material.

Any medical inquiry into an illness begins, and ends, at the bedside. The clinician who anticipates a definite diagnosis in every case in which a biopsy is performed is doomed to disappointment, especially if the technical or laboratory details are handled by someone else. The hematologist himself is primarily a clinician, who studies the blood and its tissues of origin and brings to the bedside all the available data.

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INTERPRETATION OF EXCESSIVE GONADOTROPIC HORMONES EXCRETED IN URINE IN EARLY PREGNANCY

A. J. Kobak, Chicago (*Journal A.M.A.*, April 9, 1938), cites a case that demonstrates the difficulty in diagnosis when, after the expulsion of a hydatid mole, an unexpected pregnancy intervenes. The diagnosis was obscured by the contraceptive precaution. Furthermore, the possibility of a pregnancy occurring within four weeks from the date of the curettement was unlikely. With the uterus growing rapidly for one week, the hemorrhage and the hormone observations, the diagnosis of uterine pregnancy became even more dubious. The patient was admitted to the Michael Reese Hospital, where the uterus was emptied by an abdominal hysterotomy. It contained a normal fetus and placenta about 10 weeks of age. The left ovary contained a normal corpus luteum of pregnancy. The fibroids were removed and the patient made an uneventful recovery. Microscopic examination of the placenta showed nothing abnormal. Two subsequent Friedman tests were negative. When more negative reports are made, the diagnostic value of large quantities of gonadotropic hormones in the urine will be more limited. The clinical history and physical appearances should be given primary consideration before one concludes that chorionepithelioma or hydatidiform mole is present.

SOME REMARKS ON THE EXPERIMENTAL PSYCHOLOGY OF THE KRAEPELIN SCHOOL*

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Kraepelin was a pupil of Wundt. Wundt stated that empirical natural science resents philosophical speculations which are not based on experience.

He claimed that psychology should be based on philosophical premises but philosophical speculation shall only be recognized if it keeps in mind, at each step, the facts of psychologic experience as well as of experience of natural science. Plato liberated the soul from the body and opened the door to dualism. Aristotle softened the idea by carrying the soul as life-giving and formative principle into matter. For him also the plant was a being with a soul. Descartes considered the soul exclusively a thinking being. Leibniz with his monad doctrine tried to replace the Cartesian soul substance by a more general principle, approaching again the conception of the Aristotelian soul. Herbart, so says Wundt, successfully refuted Wolff's theory of the power of the soul with its superficial classification of processes of the soul composed of memory, imagination, sensation, intellect, etc. Herbart, however, wasted the best part of his perspicacity by inventing an entirely imaginary system of mechanics of perception to which his metaphysical idea of the soul seduced him. Descartes became the most powerful influence of that method of thinking which led to modern materialism. If, so says Wundt, animals are natural automata, in which everything occurs purely mechanically, which is generally considered perception, feeling, will, why should this proposition not hold good for man? The materialism of the 17th and 18th century drew this conclusion. There are a great number of experiences, which leave no doubt that there exists a connection between physiologic processes of the brain and psychic activities. May these few remarks by Wundt in the first lecture on the soul of man and animal (1892) suffice for an introduction of the subject matter, namely, "Some remarks on the experimental psychology of the Kraepelin School."

Kraepelin who died October 7, 1926, in his seventies, worked in Wundt's laboratory. On pages 358 and following, of Wundt's *Physiologic Psychology*, 2nd volume, 1893, Kraepelin's work "The Influence of Some Drugs on Mental Efficiency, Jena

1892," is mentioned. It was a very important contribution. Incidentally, I mention that space and time does not permit to dwell on the most important work of Fechner, Weber, Ebbinghaus, Cattell, Galton and others. Kraepelin and his pupils have published their contributions from 1896 until 1928, when the last number of "Psychologische Arbeiten," Volume IX, part 3 and 4, appeared. In the introduction of his first volume Kraepelin says: "When in the winter of 1879 a modest room was given to Wilhelm Wundt for psychologic experiments, he could scarcely foresee the rapid advance of this new field of investigation. Fifteen years later pupils came from all over the world. Laboratories are now found in great numbers. Kraepelin entitled his introduction "The Psychologic Experiment in Psychiatry," but the investigations went far beyond it. The amount of work published is immense. August Hoch, M.D., has the following to say in his article "Kraepelin on Psychological Experimentation in Psychiatry" (*American Journal of Insanity*, January, 1896).

"He not only applied methods which were used in experimental psychology, but devised new ones particularly fitted for the investigation of abnormal conditions; and it is well to say at the beginning of the review that the objections which could be made to a study of this kind—namely, that experimental psychology is itself not enough advanced to be applied, so that it is questionable whether the methods there used are applicable to abnormal individuals—do not hold good, since Kraepelin takes the methods less from physiologic psychology, than the experimental method in general."

Weygandt (*Psychologische Arbeiten*), Volume IX, numbers 3 and 4, 1928, page 371, states:

"Yearly about 150 of our patients are examined psychologically. The forensically frequently very

*Read before the Detroit Philosophical Society, May 26, 1938.

important differential diagnosis between epilepsy and hysteria, between hypomaniac and other unrest, between paralytic epileptic and schizophrenic and other feeble-mindedness, between organic defects and compensation-hysterical disturbances, etc., find supporting evidence in this manner, and not infrequently a decision. The investigations are supplemented by alcohol reactions with psychologic investigations. If, in a case, only a vague suspicion existed concerning hypomaniac traits, the association experiment produced in more than 30 per cent reactions after the nature of word supplement, it entitles us to lean in court more strongly to the hypomaniac explanation and the deviation from logical orderly thinking."

The main factors which dominated some of the work of Kraepelin were the study of the influence of (a) practice, (b) fatigue, (c) the warming up effect, (d) the habit-forming which is lost very slowly in contrast to the warming up effect, (e) impulse, which is of short duration, also the influence of the will at the end of work, and the end-spurt. These efforts fight against the influence of fatigue (f) influence of disposition (good or bad disposition), (g) coöperation of influence of will and feeling, which is closely connected with the idea of coercion by imposed displeasing work in contradistinction to joy to work, (h) feeling of fatigue (psychopaths who break down by not noticing fatigue). We see that there are nine main factors at work.

Methods

Among the methods used by Kraepelin and his pupils, may be mentioned:

1. Physical measures of time with the aid of Hipp's chronoscope and the method of Cattell. The latter consists of visual impressions which appear before the eye with a certain measured velocity and are observed through a narrow slit. Objects may be letters, short or long words, sentences or illustrations.

2. Measurement of associations.

3. Fixation of association responses. The same associations appear after long intermissions.

4. The continuous methods of work first investigated by Oehrn, 1889, according to certain plans, (a) adding of single digits which consists in the reawakening of learned combinations of conceptions, (b) learning by heart of a series of twelve single digits or senseless syllables, as used first by Ebbinghaus. (Galton has examined that learning ability of mentally diseased children who could repeat only three to four

letters at a time, whereas mentally healthy children could repeat seven and eight.)

5. Reading. There is no method to measure the understanding but only the velocity with which a certain number of syllables are read (In this manner the nationality of a confidence man was established). Rieger has found many new facts in aphasic persons.

6. Writing gives mainly an insight in purely peripheral phenomena. Grashey and Goldscheider had induced Kraepelin to construct a "writing scale."

7. Measurements of the touch threshold (Griesbach). This is useful in following up fatigue.

8. Time estimation with fatigue. The measured time spaces become gradually shortened.

9. Examinations with the ergograph which allow to measure the work of certain muscles. Mosso had noticed that the work of the flexors of the hand was influenced by psychic influences.

10. Measurements of the depth of sleep in the various timespaces after going to sleep (according to Kohlschuetter).

Kraepelin admits that every endeavor to work out facts of experience by the mind can only be accomplished with the aid of imagination and therefore is apt to contain errors.

Let me refer to "The Principles of Scientific Management" of Frederick Winslow Taylor, Harper Brothers, 1911, and to the twelve principles of efficiency by Harrington Emerson, N. Y. (The Engineering Magazine Company, 1916).

If one considers the great amount of work which is done in this country in experimental psychology, we are surprised at the variety of questions which are answered in the various laboratories.

Kraepelin considered the "joy to work" as an essential point for national welfare. In our time, even in the United States, much consideration should be given to this factor. Kraepelin, in this manner, understood and emphasized the value of emotion many years ago.

He said in 1894:

"It is highest time that also with us, in psychologic questions, the serious conscientious individual investigation should replace ingenious statements and deep speculations. We do not get anywhere with

things which we cannot prove or contradict. We need facts, not theories. It is true that no science can do entirely without comprehensive views and temporary hypotheses, but we must never forget that these have no intrinsic value and that they cannot be recognized per se. They are nothing but means to an end. They are only justified when they ask definite questions and, thus, lead to new investigations. I think, says Kraepelin, that a sufficiently large number of questions have been asked. We shall now begin to answer them, not sitting at the desk, but in the laboratory, not by ingenious thoughts but by measurements and observation."

William James (*The Thoughts and Character of William James* by Perry, 1938, p. 454) says:

"Every cognitive project is on trial, and bound to submit itself to fresh findings of fact, no matter what other credentials it may possess. This includes the judgment of science, common sense, religion, and metaphysics. A philosophy is called empiricism when same is contented to regard its most assured conclusions concerning matters of fact as hypotheses liable to modification in the course of future experience."

We must admit that the exact work of Kraepelin and his pupils has laid a foundation, the importance of which cannot be denied. Some may say that some of the results could have been imagined without experimentation. The very fact that the results gave an explanation coinciding with actual experiences, shows how reliable have been the methods employed by Kraepelin and his pupils. Guess work has been replaced by proven facts and exact measurements.

Let me mention a few practical deductions from the results of the investigations

of the Kraepelin School, some in connection with other investigators.

1. It is not right to place gymnastic exercises at the beginning of the school day, nor during the day. Gymnastic exercises belong at the end of the school day. Physical work tires the mind like mental work (Mosso, Bettmann).

2. Overwork of pupils can be prevented if the more difficult subjects are not placed at hours of the school day when the pupil is tired.

3. Intermission for rest must be longer at stated periods during the day.

4. Sufficient sleep is an absolute necessity.

5. The effects of exhaustive work can be traced for days and are not corrected by a one night's rest (Bettmann).

6. The strain of night work demands close attention.

7. School work and housework demand close control by mental hygiene. Attention must be paid to the various mental capacities of pupils.

8. The influence of alcohol and other drugs must be considered (Aschaffenburg and others).

9. The high pressure methods must be recognized in their damaging influences. (Incidentally, may I remark that nature cannot be deceived. We know that some people in their appearance, actions and health have used, or, better, abused, their physical inheritance so that their bodies are used up long before they should have been).

10. Like the thermometer is used to measure the body temperatures, the stethoscope to investigate the conditions of organs in the body, the medical laboratory to find changed conditions in bodily health, so do the investigations in psychophysical laboratories look into the rules which govern mental activities (Weygandt, etc.).

11. The work and evaluation of experimental psychology are only beginning to be recognized in their true value and in their importance for a healthy life of the individual and of the human race.

12. This work engages the efforts of trained observers and skilled interpreters, so that pitfalls may be avoided as much as possible.

THE BRAIN

(From Dr. Oliver Wendell Holmes' "Living Temple")

Then mark the cloven sphere that holds
All thought in its mysterious folds.
That feels sensation's faintest thrill,
And flashes forth the sovereign will;
Think of the stormy world that dwells
Locked in its dim and clustering cells.
The lightening gleams of power it sheds
Along its hollow, glassy threads.
O, Father, grant thy love divine
To make these mystic temples thine.
When wasting age and wearying strife
Have sapped the leaning walls of life,
When darkness gathers over all,
And the last tottering pillars fall,
Take the poor dust thy mercy warms,
And mould it into heavenly forms.

SUBMAXILLARY STONES

Case Report

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A brief review of the literature shows that in some regions more parotid stones than submaxillary are found. In other geographical regions the exact opposite is true. The composition of the stones is almost identical with tartar which collects on the teeth. Both swarm with micro-organisms. The etiology is as indefinite as is that of stones found elsewhere. The size of the stones varies from that of a millet seed to one over an inch in length. Each submaxillary gland, composed of around 1,500 lobules, is drained by Wharton's duct, the external orifice of which is found just behind the lower incisor teeth in the floor of the mouth. The ejection of saliva within the gland is accomplished by the secreted saliva within the gland which has been found to be greater than the arterial blood pressure when it is in full activity.

Submaxillary stones are found three times more often in males than in females. They may produce no symptoms and are discovered accidentally through x-ray examination. In most cases, pain is quite pronounced and occurs at the beginning of a meal. Another common finding is swelling, which occurs as soon as eating is begun. The swelling is located on either side, beneath the mandible, but if very great, may extend above. At times, a swelling is found in the floor of the mouth. Usually relief is sought because of secondary infection which has aggravated existing symptoms.

Examination often discloses saliva coming only from the unaffected side. At times the stone can be seen just behind the orifice of Wharton's duct as a yellowish object. If pressure is applied to the swelling, the duct balloons out. This same procedure may push the stone through the orifice. A great spurt of saliva follows.

The purpose of reporting this case is to call attention to the number of stones that have been recurring. The literature on submaxillary stones is very extensive but little is said about the same patient returning with more stones. Ivy and Curtis² had

one patient return after two years with a single stone on the same side, and another patient returned after two and one-half years with a single stone on the opposite side.

Case report of Mr. L. R., aged fifty-eight. Submaxillary stones have been removed from Wharton's duct exactly eight times since October 29, 1933. Stones were removed from the right side three times and from the left side five times. They were extracted from the duct by exerting pressure on the swelling and either dilating or incising the duct orifice. At times the stones could be seen through the orifice, at other times they were located further back. In all recurrences only one stone was found. All of the stones were very friable, crushing with slight pressure. The largest was only 0.5 cm. They varied considerably in shape, being cylindrical, round, ovoid, et cetera. The recurrence at times was very rapid. The first stone to be removed was on October 29, 1933, right side. Then, less than two months elapsed when the second one was taken from the left side on December 18, 1933. Nearly a year later, October 13, 1934, one was removed again from the left side. On April 23, 1935, a stone was removed from the right side. Twenty-two months later, on June 14, 1937, another stone was found on the right side. The last three have all been from the left side. They were removed on the following dates: December 28, 1937, January 5, 1938, and September 19, 1938. The only symptoms of which this patient complains is that of swelling. Each time it has occurred at the beginning of a meal.

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POSTERIOR VAGINAL ENTEROCELE*

Report of Two Cases

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The report and the discussion of the two cases presented here is to point out that exceedingly small series of cases of enterocele are still being reported and secondly to record a case that presents a complication not hitherto found in the literature.

Case 1 presents a posterior vaginal enterocele complicated by an acute intestinal obstruction and is as follows:

Case 1.—Mrs. —, a white woman, aged thirty years, was admitted to the hospital with symptoms of acute intestinal obstruction, May 31, 1936. She had been seized with a pain in the left pelvic region which was so severe that she fainted. When she returned to consciousness she had recurrent lower abdominal cramps and some nausea, and a feeling of pressure in the vagina.

Six weeks previously she began to have severe crampy pains in the lower left quadrant that came on suddenly. Since then at irregular intervals the pains returned and were often associated with heavy work. These pains would last for a few minutes to one-half hour and were accompanied by nausea, vomiting and a distinct sense of pressure in the pelvis. Decubitus relieved the attacks until the present illness.

Her past history was of no interest except that she had delivered two children and the first had been a long, hard labor.

Physical examination revealed the following pertinent findings. There was slight pain on deep pressure in the lower left quadrant. The genitalia revealed old lacerations of the perineal muscles. The cervix was pushed behind the symphysis by a fixed cystic mass in the posterior vaginal vault. The mass measured approximately 9 cm. in diameter and extended downward to the levator muscles. The mass could not be reduced by pressure through the vagina but when digital pressure was applied through the rectum the mass was reduced and the intestinal colic stopped; this maneuver had all of the characteristics attributed to the manual reduction of an incarcerated inguinal hernia.

Operation was performed, using the technic described by George Gray Ward. The sac was dissected free as high as the utero-sacral ligaments and tied off. The utero-sacral ligaments were sutured together as far as the rectum and the hernial opening was closed, using interrupted silk. Levatorrhaphy was done.

Convalescence was uneventful and she has had no recurrence.

Case 2 presents uterine prolapse with cystocele, rectocele and posterior enterocele.

Case 2.—Mrs. E. S., white, aged thirty-nine years, complained of a sense of pelvic pressure and weakness, backache and vaginal discharge. These symptoms began with the first delivery about 16 years ago and became worse with each of the four succeeding pregnancies. During the last six weeks she has had intermittent vaginal bleeding.

Examination revealed an obese woman with no pertinent findings except those referable to the pelvis.

Pelvic examination revealed a marked laceration of the perineal muscles; the uterus was slightly larger than normal and dropped downward as far as the levator muscles. There was a severe laceration of the cervix with edema and redness; there was a large cystocele and rectocele, the latter extended upward to the posterior fornix.

Operation was performed August 20, 1936. A vaginal hysterectomy was done, using the Mayo technic for the repair; silk was used to fix the broad ligaments to the symphysis pubis on either side. During operation the enterocele was demonstrated to make up about one-half of the "rectocele" mass and it was repaired with silk, using the technic of George Gray Ward. The patient has had no further trouble.

Discussion

Posterior vaginal hernia or enterocele, electrocele, hernia of the cul-de-sac of Douglas and high rectocele are the more common terms used in the literature to designate a herniation that extends through the cul-de-sac into the area between the rectum and vagina. Enterocèles are frequently unrecognized or are mistaken for rectocele. The successful repair of enterocele differs from that of rectocele because of the anatomy involved. Enterocele is not frequently reported and only in the last six years have standard textbooks described the condition. Bueerman in 1932 found only 81 cases during an exhaustive search of the literature; he added three cases. Masson reported eleven new cases in the same year and since then to October, 1938, nine additional cases are mentioned. Since Garengoet reported the first case in 1736, the total number is eighty-seven cases. Without doubt the incidence of enterocele is far above this figure.

Etiology

A congenital defect in the structural development of the parts is the primary etiological factor. Zuckerkandl, Moschcowitz, Jones and others have shown that a deep cul-de-sac is always found with enterocele. The secondary factor is trauma which is initiated by parturition in 90 per cent of the

*From the Department of Gynecology, Receiving Hospital and Wayne University College of Medicine.

cases. Operation, contusion and intra-abdominal pressure brought on by severe exertion, ascites, tumor, etc., are the less frequent causes.

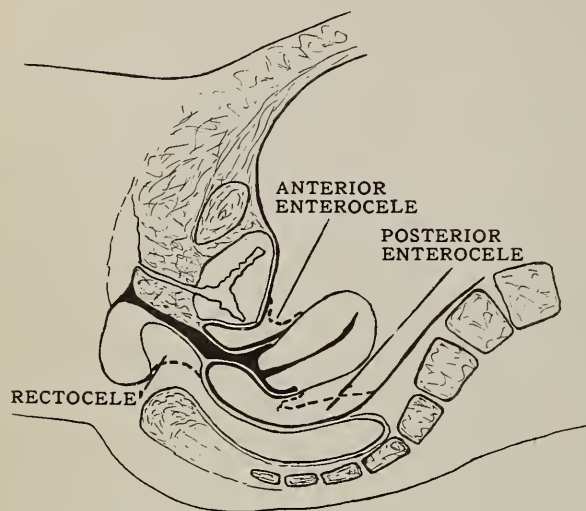


Fig. 1

Posterior enterocele is only one of a group of herniæ that project into the vaginal canal or at its orifice. (See drawings.) Herniæ about the vagina may be divided into two groups, the common and the uncommon varieties. Cystocele and rectocele comprise the first group and need no discussion here.

In the second group there are four varieties:

1. Posterior enterocele comprises 74 per cent of the cases, according to Bueerman. This hernia may project downward as far as the levator muscles.
2. Anterior enterocele projects through the anterior cul-de-sac between the bladder and the uterus and comprises 20 per cent of these cases.
3. Pudental herniæ project through the broad ligament just lateral to the uterus and appear in the lateral wall of the vagina or pudenda.
4. Ischio-rectal herniæ project through the levator muscle near the "white line" and appear lateral to the rectum; they are quite rare.

Symptoms of enterocele are not characteristic and are similar to those related to rectocele. The gradual appearance of a mass, the associated pressure upon neighboring organs and various degrees of local

discomfort are the usual signs. In about one-third of the cases the onset is sudden and in three cases reported signs of intestinal obstruction appear. The prone posi-

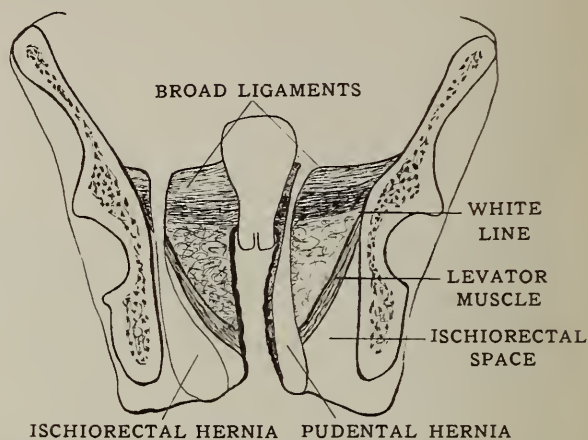


Fig. 2

tion may relieve all symptoms. The recurrence of a mass following a perineal repair or a hysterectomy is very suggestive.

Diagnosis is best established by reducing the hernia by rectal approach and preventing its return by pressure of the finger against the neck of the sac at the cervix. In large enteroceles peristalsis may be seen.

The indications for repair are as follows:

1. Active symptoms similar to those found in pelvic prolapse.
2. Steady increase in size of the hernia.
3. Signs of intestinal incarceration.
4. Discovery of the condition during the repair of perineal lacerations or uterine prolapse.
5. For prophylaxis against such reported complications as interference with parturition, rupture of the hernia with evisceration and injury to the bowel due to faulty diagnosis.

In about 46 per cent of Bueerman's series no operation was done and in seven cases (11.8 per cent) the condition disappeared spontaneously following delivery or pelvic infection.

Treatment of enterocele is surgical and one of two methods is chosen. The Moschowitz technic closes the cul-de-sac by the abdominal route by using a series of superimposed purse-string sutures of silk or linen.

The Ward technic employs the vaginal

approach and removes the sac as high as the uterosacral ligaments, which are sutured together as far as the rectum, and then the canal is closed by interrupted sutures. Unless there is complicating pathology that cannot be approached through the cul-de-sac, I believe that the latter technic is to be preferred, not only by the surgeon but also for the benefit of the patient.

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A RÉSUMÉ OF QUINIDINE SULPHATE THERAPY

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Quinidine was brought to the attention of the medical fraternity twenty years ago. Its earlier champions^{7,12} held forth brilliant possibilities for the drug in the treatment of irregularities of the heart beat. Later clinicians^{4,10,15} have used the drug with increasing respect, both for its therapeutic value and for its irregular toxic effects. Although quinidine is not the panacea for irregularities that we had first hoped it might be, it has become a definite aid to us in the control of certain factors in heart disease and has added another rung to the ladder of knowledge of heart physiology.

Quinidine sulphate is derived from cinchona and is the dextroisomer of quinine.³ Quinidine is less of a protoplasmic poison than quinine and is less effective in the treatment of malaria.

Quinidine sulphate exerts its action by increasing the refractory phase of contracting heart muscle.⁶ It is said⁶ to have the ability to depress the property of irritability of heart muscle, but the term "depressed irritability" does not seem proper in light of the physiology of cardiac muscle. By lengthening the refractory phase of myocardium it causes extra-nodal foci of excitation to fall upon the heart muscle when it can not respond to stimuli other than those coming over the conducting system at the proper interval. Fortunately quinidine has little or no effect upon the sinus node and by the same token should not be used to correct a sinus tachycardia. It has little or no effect upon the tone of heart muscle.

Its more common toxic manifestations,^{5,17} which are in the vast majority of cases due to excessive doses, are tinnitus, nausea, vomiting, headache, diarrhea, skin rashes, and, rarely, sudden death.

Because of the antagonistic action of digitalis and quinidine they are often used in conjunction with one another, but there is no logical reason for this. It has been shown^{5,13} that while quinidine will prevent some of the toxic arrhythmias produced by

digitalis, when both drugs are used together there are electrocardiographic changes produced which are not found when either drug is used alone. There should be little objection to slowing the rate of fibrillation, in some cases, with digitalis prior to the administration of quinidine, providing the patient has not been over-digitalized.

Digitalis definitely increases tone and contracting ability of heart muscle and also increases the conduction time over the bundle of His. Quinidine has little or no effect on these phenomena.¹⁷

Quinidine is indicated in cases of paroxysmal auricular fibrillation, both to stop the attacks and lessen the frequency of their occurrence.^{11,12,13} The optimum dose is twelve to forty grains a day for not more than seven or eight days, following a sensitizing dose. In uncomplicated cases we are led to believe that we may expect a return to normal rhythm in about 50 per cent of trials. It is agreed^{4,5,11,15} that the best results are obtained in patients who have not been fibrillating more than a few months, who have no evidence of decompensation or heart failure, who have no sign of cardiac pathology, and who have not had embolic phenomena.

There has been a great difference in opinion regarding the dangers of quinidine in cases of established fibrillation. The two

principal hazards are syncope and embolism due to dislodging of a clot from the auricles. Fatalities due to quinidine are rare but a number of sudden deaths have been reported from reliable sources.¹⁷ In cases of long standing fibrillation it seems questionable whether the benefit of temporary return to sinus rhythm justifies the exposure of the patient to the large doses usually required.

It is generally agreed^{1,5} that it is unsafe to administer quinidine to thyrotoxic patients sooner than ten days following thyroidectomy, because thyroxin is stored in excessive amounts in the myocardium up to that time at least and this makes the action of quinidine uncertain.

Quinidine should be tried in cases of auricular flutter.^{8,9,11} While digitalis is still held as the more effective remedy by some, the attacks may be lessened in frequency and in duration in most cases by not more than nine grains a day for four to six days.

Paroxysmal tachycardias of both auricular and ventricular types are definitely benefited by the use of quinidine.¹¹

There is less general agreement as to the beneficial effects of quinidine in the cases of extrasystoles. The most logical argument in favor of quinidine is that it tends to lessen the probability of a more serious arrhythmia.¹⁴ Bohan⁵ reports the successful use of quinidine in ambulatory cases by the administration of six to nine grains a day for four days followed by a rest period of three days before repetition.

Quinidine is becoming increasingly important as a therapeutic agent in the treatment of myocardial infarction.^{5,11,16} The cause of death in these cases is usually fibrillation of the ventricles. Many writers advocate the use of five grains four times a day from two to six weeks to prevent any fatal arrhythmia during the recovery period. Quinidine should also be given in cases of angina pectoris when attacks are frequent, not to stop pain, but to prevent ventricular fibrillation.^{8,11}

In conclusion:

1. Quinidine is of definite value in the therapy of uncomplicated paroxysmal auricular fibrillation and in paroxysmal tachycardias of both auricular and ventricular types.

2. It may be of value in cases of long standing auricular fibrillation and of auricular flutter, and in the therapy of extrasystoles.

3. It may be of value in cases of myocardial infarction and angina pectoris by preventing the occurrence of a fatal arrhythmia.

4. It will not correct a sinus tachycardia.

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*"Every man owes some of his time to the up-
 building of the profession to which he belongs."*

—THEODORE ROOSEVELT.

EDITORIAL

CUT RATE PHYSICAL EXAMINATIONS

A new federal law makes it mandatory that all truck drivers engaged in interstate commerce submit to and pass satisfactorily physical examinations. These are presumably to be the responsibility of the employer, to be paid for by him. A new agency has been organized to assist the employer by providing him with the necessary forms, data and advice required by the new law. There is no particular objection to this. We understand, however, that while, as mentioned, the selection of the doctor and payment for his services is the function of the employer, the service organization mentioned is in a position to recommend physicians and actually does this. Furthermore, that physical examinations are actual-

ly being made for a dollar each and sometimes for less. The physical examination blank has been examined by the medical economics commission of the Wayne County Medical Society, who maintain that a proper filling out of the form requires as much time and care as entailed in an ordinary life insurance examination.

How an experienced professional man can make these examinations for a dollar is difficult to comprehend. As charity, he often gives his services, but this is not a matter of charity. The truck driver may require a passport photo as a means of identification. All taxi drivers do. If so, he will pay at least a dollar for his photo by a photographer whose skill and training and responsibility do not compare with that of the doctor.

The physical examinations are for the sake of greater safety on the highways. Why then should not the matter be taken seriously? Why enter into any agreement the proper carrying out of which is apt to lead to cheap and slipshod work? If the laborer is worthy of his hire, why is not the physician also? The term "cut rate," wherever one encounters it, leads to the suspicion of inferiority. After all, one usually gets what he pays for, sometimes less, seldom more. The federal law requiring the physical examination of truck drivers was enacted for the purpose mentioned. Why render it useless by treating it as if it were an unimportant piece of legislation that may be dispensed with in the most routine way?

THE LAY PRESS

The November number of *Fortune* contained an article on the American Medical Association; and, by the way, let each reader of the JOURNAL of the Michigan State Medical Society not lose sight of the fact that this refers to him as a member of the great body of organized medicine in the United States. The article in *Fortune* is based upon "three months of research," the conclusion of which is that "the American Medical Association has worked against its own purposes by changing to ideas that have been discredited. Today it finds itself within hailing distance of its own downfall and it is now in a process of acknowledging defeat of its leadership."

Some wise person has said that the apple tree with the finest fruit is that which has

the most clubs lying on the ground around it. If there is any truth in this, the medical profession can certainly take heart over the attention it has received in the past few years.

Prior to the appearance of the November number of *Fortune*, many physicians throughout the United States, including the editor of this JOURNAL, received letters drawing attention to the forthcoming article on the medical profession. Dr. Andrew P. Biddle, who is one of the best known men in Michigan medicine, has written a reply to said letter after reading the article in *Fortune*. Dr. Biddle's letter is very much to the point. He speaks from an experience of over half a century, which surely is entitled to a hearing as compared with "three months' research." Dr. Biddle emphasizes the personal relationship between patient and physician, and goes on to say that the analogy often made between medical service in the army and medical service to the lay population is beside the point, owing to the fact that both soldier and sailor and medical staffs of the army and navy are under military and often war-time discipline. In reply to the statement that the medical profession had not yet removed the preponderance of many diseases, among them syphilis, Dr. Biddle makes the emphatic statement that "there is no comparison in what constituted care of syphilis at the time of my graduation in 1886 and what it is today. The case is as different as night and day." Everyone would agree to this even though his experience may not have gone back farther than two decades.

Dr. Biddle deplors the attitude of many younger physicians "who grasp at a fancied economic security and sell their soul for a temporary appeasement." There are reasons for this which we will not discuss.

Dr. Biddle makes a strong point in the following paragraph:

"In reply to your letter I cannot understand why you editors would inflict upon others socialized medicine, governed by bureaucratic politicians, who know nothing of medicine and the sick and care less, that which you would not impose upon and submit to yourself. You are insistent upon the freedom of the press. Why deny us freedom of thought and action?"

Yes, why are some editors so insistent on maintaining the guarantee of the constitution regarding the freedom of the press and

at the same time evince a willingness to impose regimentation on the medical profession? We hesitate, however, to indict the entire press, for the simple fact that a large number of editors do champion that freedom for others that they insist upon for themselves.

Dr. Biddle goes on to say "there are conditions which effect the general public and which cannot be handled except through public agencies; but these conditions do not usually apply to the individual." Every rational person will concede this.

The reader is reminded that medical ethics, which has come in for so much obloquy, has come down through the centuries to define a working behavior towards the patient, towards the public and among doctors themselves and has, therefore, a survival value. Dr. Biddle goes on to say that "some of its principles are fundamental and eternal. Others are liquid and are changed from time to time to meet the changing conditions of human relations. In conclusion, the doctor wisely maintains that "we shall not submit to mass regimentation so long as we have to force to endure."

A NEW CIRCUMCISION TECHNIC

In an attempt to simplify the operation of circumcision an instrument consisting of two parts is used. The first is a spindle-like part having bell-shaped ends of a large and a small size. Around each end is a groove into which the wire ring of the second part contracts. The spindle is hollow,

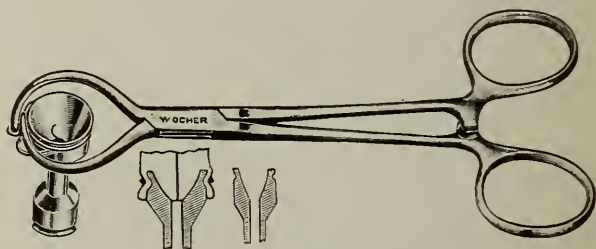


Fig. 1

to prevent a vacuum attaching the instrument to the glans, and to permit escape of urine in case a baby should void during the operation. The second part is like a hemostat with curved beaks into which is fitted a wire ring which expands and contracts as the instrument is opened and closed. As the beaks open, the wire ring opens on one side to permit it to be slipped onto the spindle from the side rather than over the end.

In changing the instrument to a different size the opposite end of the spindle is used and the wire ring is replaced by one of the other size, a procedure which is as quick and easy as changing the wire in a tonsil snare. However, unless it is necessary to change sizes, the same wire does for an indefinite number of circumcisions. The smaller size

is suitable for boys from birth to six or seven years of age, and the larger size for older males.

The circumcision is performed by making a dorsal slit and freeing the adhesions between the prepuce and the glans. The prepuce is then stretched over the bell-shaped end of the spindle and held in place by the thumb and index finger of the left hand while the wire ring clamp is slipped onto the spindle at the level of the groove with the other hand. The wire ring is then contracted, crushing the prepuce into the groove. The instrument is left in place about ten minutes, after which the prepuce is trimmed off close above the wire with a scalpel and the instrument removed. Usually no suturing is required and no bleeding occurs.

The advantages of the technic are: it facilitates the operation, it saves suture material, and the completed operation is smoother.

E. M. SMITH, M.D.
16 Monroe Ave.,
Grand Rapids, Mich.

WHO IS LIABLE FOR TAX

Operators of private laboratories, private sanitariums, and physicians employing one or more were advised today by Commissioner of Internal Revenue Guy T. Helvering to make immediate tax returns as required under the provisions of Titles VIII and IX of the Social Security Act to avoid further payment of drastic penalties which are now accruing.

Commissioner Helvering pointed out that every person involved in such work came under the provisions of Title VIII, which imposes an income tax on the wages of every taxable individual and an excise tax on the pay roll of every employer of one or more. This tax is payable monthly at the office of the Collector of Internal Revenue. The present rate for employer and employee alike is one per cent of the taxable wages paid and received.

Under Title IX of the Act, employers of eight or more persons must pay an excise tax on their annual pay roll. This tax went into effect on January 1, 1936, and tax payments were due from the employers, and the employers alone, at the office of the Collector of Internal Revenue on the first of this year. This tax is payable annually, although the employer may elect to pay it in regular quarterly installments.

The employer is held responsible for the collection of his employee's tax under Title VIII, the Commissioner explained, and is required to collect it when the wages are paid the employee, whether it be weekly or semi-monthly. Once the employer makes the one per cent deduction from the employee's pay, he becomes the custodian of Federal funds and must account for them to the Bureau of Internal Revenue.

This is done, Mr. Helvering said, when the employer makes out Treasury form SS-1, which, accompanied by the employee-employer tax, is filed during the month directly following the month in which the taxes were collected. All tax payments must be made at the office of the Collector of Internal Revenue in the district in which the employer's place of business is located.

Penalties for delinquencies are levied against the employer, not the employee, the Commissioner pointed out, and range from 5 per cent to 25 per cent of the tax due, depending on the period of delinquency. Criminal action may be taken against those who wilfully refuse to pay their taxes.

The employers of one or more are also required to file Treasury forms SS-2 and SS-2a. Both are informational forms and must be filed at Collectors'

offices not later than next July 31, covering the first six months of the year. After that they are to be filed at regular quarterly intervals. Form SS-2 will show all the taxable wages paid to all employees and SS-2a the taxable wages paid each employee.

AMERICAN MEDICO-LEGAL ASSOCIATION

We have received Number I, Volume I, of the *American Journal of Medical Jurisprudence*, the official organ of the American Medico-Legal Association, with offices at 137 Newberry Street, Boston, Massachusetts. Dr. Frederick C. Warnshuis, formerly secretary of the Michigan State Medical Society, is the editor. Dr. Warnshuis is also president of the American Medico-Legal Association. The journal is unique in its appeal to the professions of Medicine, Law and Dentistry. The editorial board comprises nineteen of the most outstanding authorities on medical jurisprudence in the United States. The journal consists of seventy-two double column pages of reading matter in good, clear type. The purposes and scope of the work of the new association are as follows:

(a) To edit and publish the *American Journal of Medical Jurisprudence*;

(b) To assume leadership in the conducting of an educational movement directed to bring dependable information to physicians, dentists, hospitals, attorneys, employers and employees upon questions relating to the legal provisions governing the rendering of professional services;

(c) To inaugurate movements, to mold sound opinions and to establish unity of standards and action in medico-legal relationships;

(d) To devise ways and means to inspire and encourage investigations in the field of Forensic Medicine.

(e) To aid medical examiners and coroners;

(f) To assist law enforcement officers in perfecting standards of medical examinations required by law;

(g) To provide a central office of information on medico-legal questions;

(h) To assist members in their indemnity insurance problems;

(i) To develop studies, conduct research and to advance regulations in employment compensation; and

(j) To concern ourselves with any and all of the branches of legal medicine as they are related to the rendering of medical care and preventive medicine.

A good idea of the new journal is to be had from a perusal of the contents of the present number: The Medical Man on the Witness Stand, by Eugene O'Dunne, LL.M.; Blood Groups in Disputed Paternity, by Michel Pijoan, M.D.; What Constitutes Body Attack in Medical Practice? Herbert V. Barbour, LL.B.; The Expert Witness and the Insanity Defense Plea, Martin H. Hoffman, M.D.; The Interpretation of X-rays in Court Hearings, by L. H. Garland, M.D.; Organized Society's Interest in Death, Oscar T. Schultz, M.D.; Detailed Examination Required to Determine Whether Rape has been Committed, J. R. Garner, M.D.; Doctors, Juries, and Judgments, Paul E. Craig, M.D.; and Diagnosis and Treatment of Legal Congestion, by Alfred Koerner, M.D. In addition to these is an interesting and timely paper on The Coroner and the Medical Examiner, prepared by the National Research Council of the National Academy of Science. Then follow special departments, namely, Editorial, Across the Editor's Desk, in which the editor assumes a more personal approach to his subject, Current

Comment, In the Courts, In the Legislature, Open Forum, Book Reviews and Abstracts.

Number 1, Volume I, is of absorbing interest. It sets a high standard for succeeding numbers. The editor's long experience as secretary of the Michigan State Medical Society and editor of its Journal, as well as his years as speaker of the House of Delegates of the A.M.A., admirably qualify him for this latest venture in specialized journalism.

SHOULD RADIOLOGY AND PATHOLOGY BE INCLUDED AS BENEFITS IN HOSPITAL INSURANCE PLAN?

Radiology and pathology are definite, legitimate specialties and their practitioners are consultants, possessed of much highly technical post-graduate training and are entitled to an equal consideration and standing accorded to those engaged in other recognized specialties. There is no justification in forcing them into the degraded roll of "come-bns" or their services offered as additional inducements for the purpose of increasing policy sales.

Not more than ten per cent of legitimate hospital patients require any form of x-ray and only twelve per cent require any but the simplest laboratory investigations, hence, there is very little total benefit to policyholders. Would it not be more sensible to give them an additional day or two hospitalization? The inclusion of *some* professional services will most certainly pave the way for the inclusion of more and broader practice of medicine by hospitals, as was so graphically pointed out in an editorial in the State Journal a few weeks ago. This would destroy more and more the age-old doctor-patient relationship which is the fundamental basis for all good medical practice.

It is argued that charges for x-ray and pathological services are now commonly included in the hospital bill and the patient will expect them to be included in benefits. It seems to us that this is a rather inane argument. Charges for oxygen, insulin, unusual dressings and drugs, board for special nurse, etc., are also included in a hospital bill, but all plans very definitely class these as extras and they are not included in benefits.

The success of a hospital insurance plan does not depend on x-ray and pathological benefits. The Baylor plan, one of the oldest and continuously most successful of all plans, does not and never has included professional services in any form or guise. In Wichita, Kansas, and Nashville, Tennessee, there are thousands of policyholders who pay extra for x-ray and pathological charges, if, when, and as needed. There are numerous other such plans equally successful, working with full coöperation of the medical profession and giving only true hospital expense coverage. These are the reasons why organized radiology and pathology, including all national organizations, are vehemently opposed to being included as benefits. In this they are strongly supported by the published policy of the A.M.A.

Insurance coverage for medical attention in accident and sickness is another separate and distinct matter and may eventually be worked out in a manner which will prove to be feasible. A definite advance was made in this direction as presented in the Mutual Health Service plan submitted in 1934, which we would do well to consider carefully. When the time comes the services of the radiologist and the pathologist will naturally be included on the same basis of the practice of medicine.—*Genesee County Medical Bulletin*.

WARNED IN TIME

[“Herr Julius Streicher, addressing a thousand members of the Nazi Welfare Medical Administration at Munich, suggested that Herr Hitler and Signor Mussolini were great because they were non-smokers.”—News item.]

Tobacco is a noisome weed (Herr Streicher he has said it),
And from its victims there proceed no men of worth and credit;
Though Bismarck puffed, and even snuffed, and kept cigars a-going,
He was a dud—his name is mud on Streicher's latest showing.

The men of State, the good and great, avoid those hideous vapours;
Their names appear all bright and clear on History's page and papers.
Tobacco jars and fat cigars both fall beneath their veto;
They scorn all types from fags to pipes, like Adolf and Benito.

And yet beware—if that bright pair of dictatorial jokers
Now represent the mood and bent achieved by staunch non-smokers,
Why, some may flock to fill, restock their smoking store or larder,
Resolved to miss that doubtful bliss by smoking all the harder.

—*Manchester Guardian*.

PARIS PHYSICIANS PROTEST AGAINST SOCIAL INSURANCE

The abuse of free medical care by the public hospitals and dispensaries and the illegal extension of the original function of the social insurance authorities are arousing the French medical profession to make a virgorous campaign to put an end to a movement which renders it difficult for physicians to earn a living, the regular Paris correspondent of *The Journal of the American Medical Association* reports in the Dec. 10 issue. In the notice sent out by the association of physicians in the department of the Seine, in which Paris is situated, for a meeting to be held Nov. 4, 1938, the following plea was made for a full attendance:

It is becoming more and more difficult, in fact almost impossible, to practice in Paris and the adjacent areas.

The public hospitals and dispensaries, which are not subjected to the excessively high taxes which physicians must pay, are doing all they can to give free medical attention without any inquiry as to the ability of the sick to pay. Such institutions should treat only indigents.

The social insurance organization was created to insure the worker earning up to a certain sum annually, now 30,000 francs, so that he might be able to pay for medical care. Instead of limiting their activities to this commendable objective, the social insurance authorities have begun to make serious inroads on the work of private practitioners by attempting to organize facilities for treating the insured worker. Every effort is being made to turn the insured from specialists and general practitioners by urging them to enter public hospitals or receive treatment at the many public dispensaries.

The situation has become so acute that the time has arrived for a more energetic campaign against these abuses, which make it impossible for a physician, after many years of preparation, to compete with the tendency toward state medicine.

President's Page

EN ALERTE

TO BE ALERT, to be aware, to be prepared for the duties ahead is winning more than half the battle.

By the time this page reaches the membership, it is anticipated that the House of Delegates will have taken positive action covering some phases of the medical problems. However, this is only a small part. We are continually faced with numerous attempts to experiment with the distribution of medical service. It can be reasonably anticipated that much medical service legislation will be under consideration this session of the State Legislature. Efforts to modify the basic science law, changes in the afflicted child law, provisions for medical relief to governmental assistance groups, extensions of Public Health Departmental activities and numerous other topics are definitely on the legislative programs.

Any developments that may occur must be patterned after American methods, individual responsibilities and free enterprises.

Your State Society officers and committees are working endless hours and sacrificing health and means with two objectives in view. The first is that the distribution of medical care to the people of the State of Michigan be of the best quality and adequate for their needs. The second, that the economic security of the physician, opportunity to improve his scientific knowledge and his welfare be adequately safeguarded because the physician is the keystone of the Arch of Health and without a sturdy keystone the arch will fall.

It is the duty of every member of the Society to inform himself thoroughly of all activities involving the health of the public, to be alert to the possibilities of legislation inimical to the general welfare, and to contribute his share personally towards attaining our objectives. Do not leave the task to the Legislative Committee alone—make yourself a committee of one herewith appointed by

Yours truly,



President, Michigan State Medical Society

MEDICAL STAFF CONFERENCES

"The Department of Internal Medicine is this year (1938) inaugurating a series of weekly Medical Staff Conferences, the first of which was held in the Hospital Amphitheatre on October 7 at 4:00 P. M. These meetings are to be attended by all the members of the staff of the department and they are also open to members of other departments, the faculty of the Medical School and visiting doctors. The conferences are not open to medical students except by special invitation.

"The present arrangement is to have two patients from the Medical Service presented at each conference. These patients are selected at a weekly meeting of the Assistant Residents from the various Medical Wards and the Tuberculosis Unit and the Intern at Simpson Memorial Institute with Dr. Bert Bullington. Interesting cases from the Out-Patient Department may also be suggested by any member of the staff. A brief abstract of the history, physical examination and laboratory data is prepared by the physician in charge of the patient and mimeographed copies are distributed at the Conference. The meetings are presided over by Dr. Cyrus C. Sturgis, or in his absence either by Dr. Henry Field, Jr., or Dr. Paul S. Barker. All the discussion in regard to each patient, including all relevant references to recent and important literature, is recorded, typed and attached to the patient's record."—*University of Michigan Medical Bulletin*.

Medical Conference, October 7, 1938. Patient, G. P., No. 429756. Presented by Dr. Kenneth M. Smith.

DR. CYRUS C. STURGIS: The earliest symptom was pain in the eyes followed by swelling which completely closed them. At that time she also had fever. It was because of these symptoms that she came to the University Hospital and was admitted to the Eye Department. The ophthalmologist asked for a neurological consultation, but no neurological lesion was found, whereupon she was referred to the Department of Internal Medicine for examination. Dr. Howes, who saw her, suspected trichinosis, although no differential blood count was available at that time. She was then transferred to Medicine. Her temperature had been between 101.8 and 102.8 degrees (F.), gradually decreasing to normal on the third hospital day.

DR. KENNETH M. SMITH: On October 4, 1938, the patient had a tonsillectomy (because of a chronic tonsillitis). The pathology report (by Dr. Weller) described areas of focal myositis with eosinophilic infiltration, pathognomonic of trichinosis. Another specimen showed encysted trichinella spiralis in the pharyngeal muscles.

DR. CYRUS C. STURGIS: The blood examination on the 6th of October showed a white blood count of 6,800 with 26.5 per cent eosinophils. She is now recovering very satisfactorily, she looks well, and there is no muscle soreness. At first the muscle soreness was very severe, so much so that it was painful for her to straighten out her legs. The presence of muscle soreness, puffiness of the eyes, fever and eosinophilia at once suggests the diagnosis.

The reasons for presentation today are: In the first place, this is the third case of trichinosis that we have seen in the last few months. One very interesting case recently seen, which came to autopsy, showed the presence of trichinae throughout the body, including the myocardium. The second reason is that we have used the skin test as a diagnostic measure. This test is very simple to perform, it can be read easily, an area of induration with surrounding erythema indicates a positive result. This test is helpful in the diagnosis because about 50 per cent of the muscle biopsies in these cases are reported as negative. Dr. Bullington has collected considerable data concerning this disease in cases seen in this hospital since 1926.

DR. BERT M. BULLINGTON: Dr. Field has seen most of these cases. Since 1926 there have been forty-two cases recorded in the Record Room. Of these there were thirty-one active cases; six were diagnosed as incidental findings in the pharyngeal muscles removed at tonsillectomy and two of these

cases diagnosed by tonsillectomy were active at the time of tonsillectomy. Four cases were diagnosed by incidental muscle biopsy findings (the biopsies being performed for some unrelated illness). Three cases were picked up as incidental autopsy findings (the patients having died of some unrelated illness but having active trichinosis at the time of death). Thirteen were diagnosed by the clinical findings only, the clinical picture being quite definite. The clinical impression was confirmed by muscle biopsy in nine others; two by the skin test plus the clinical picture; one by the skin test and biopsy specimen; one by the clinical picture in addition to finding the trichinae in a specimen of pork submitted by the patient; one was diagnosed by the finding of the larvæ in the venous blood; one by the presence of the parasites in the stool; and one by the presence of the trichinae in the spinal fluid.

Of these thirty-one active cases, twenty-eight had an eosinophilia ranging from 15 to 73 per cent. One active case had an eosinophilia of only 4 per cent; two had no differential counts done. In these cases thirteen muscle biopsies were done, two on the same patient; ten were positive for the diagnosis; two were suggestive of the diagnosis, and one was negative—which is not in harmony with reports from the literature that more than 50 per cent of muscle biopsies are negative.

We have done but four skin tests. Three were immediately positive and one questionable reaction; that reaction was not read until twenty-four and forty-eight hours, at which time erythema was present at the site of the injection. Three patients had meningitis—that is, trichina meningitis. One of these patients with meningitis recovered. Two patients had myocarditis, as evidenced by electrocardiographic studies, two had myocarditis shown by the pathological specimen. One had repeated hemoptyses, one had a terminal hemorrhagic state, and died after a brisk hemorrhage from the ears, nose and mouth. At autopsy a subdural hematoma was found. One patient had a false positive Kahn on two occasions; two Kahn reactions later were negative.

DR. CYRUS C. STURGIS: Dr. Smith, do you have information regarding the Federal regulations controlling pork inspection?

DR. KENNETH M. SMITH: The Federal regulations at the present time are not very stringent. It is required, however, that all pork products which are to be eaten uncooked have to be boiled, by the producer. This is particularly true of ham, which must be heated to 137°F. Trichinae are killed by a temperature of 58°C. Pork is not directly examined for trichinae, hence the stamp of "U. S. Inspected and Passed" means nothing insofar as pro-

tection against trichinæ is concerned. It is, therefore, advisable to cook all pork well.

DR. STURGIS: This disease is not so uncommon. Are there any data about the study of muscle tissue in routine autopsies in patients who have died of various diseases?

DR. KENNETH M. SMITH: There is considerable amount of work that has been and is being done in this respect. In a series of 200 routine autopsies in San Francisco, trichinæ were found in 23 per cent of the cases; 344 autopsies in Rochester showed an incidence of 7.5 per cent; in Boston 27.6 per cent of fifty-eight autopsies; and in a recent study in Washington of 300 cases the incidence was 13.6 per cent.

Dr. Lloyd Catron has studied muscle specimens in 300 autopsies at the University Hospital. There had been no symptoms of trichinosis but trichinæ were found in 15 per cent of the specimens. There are many other similar statistics. Hall and Collins found an incidence of 12.5 per cent in 1,778 cases.

DR. CYRUS C. STURGIS: We might substitute the diagnosis of influenza for trichinosis for the lack of a better diagnosis in those individuals who have fever and muscular aching but no puffiness of the eyes.

Are there any data as to the death rate in this disease?

DR. KENNETH M. SMITH: The death rate in central Ohio epidemic of ninety-six cases was 8.3 per cent and in a Maine outbreak of fifty-six cases, two were fatal.

DR. CYRUS C. STURGIS: Have there been any experimental studies directed toward treatment?

DR. KENNETH M. SMITH: Bachman attempted immunization of rats against trichinella spiralis and found that only temporary protection could be given by feeding increasing dosages of infected meat. He also attempted to protect rats by injecting anti- and convalescent sera, feeding trichina powder, and by the intraperitoneal injection of a Coca's suspension of finely ground larvæ, but was unsuccessful in all attempts. Semrad exposed trichinella larvæ to x-ray irradiation (800 r units); although they were not killed they showed an inability to reproduce.

Miller studied a number of drugs which had been reported as therapeutically useful. Intravenous neoarsphenamine, antimony and potassium tartrate, acriflavine base, Rivalar, gentian violet and iodine had no therapeutic effect on experimentally infected animals.

Wantland found that cysts begin to form around the coiled larvæ, in the muscles, in four to six weeks; these cysts become calcified in seven to eight months. Symptoms arise from unencysted larvæ and death from trichinosis occurs within the first four to six weeks of the disease. We know that irradiated ergosterol increases the absorption of calcium from the intestinal tract. With this in mind he treated infected rabbits with calcium lactate and irradiated ergosterol. The calcification of the cysts was found to occur more rapidly, being completely so in 3 months instead of the usual period of eight months. The treated animals showed a return of their normal appetite much earlier than the non-treated ones.

DR. CYRUS C. STURGIS: Dr. Field, according to Dr. Bullington, saw most of the trichinosis patients in this hospital. Perhaps he has something to offer?

DR. HENRY FIELD, JR.: There are two patients that I recall that are of some interest. These two had presenting symptoms of fever and swelling of the lids. Both of them had no eosinophilia on admission. The diagnosis was suspected because of the association of fever with swelling of the lids with no other apparent cause of the edema. Repeated blood counts showed the development of eosinophilia. Therefore the absence of eosinophils on admission does not exclude the diagnosis.

I would like to know if there is any information about what the skin test would show in patients infected five to ten years ago?

DR. STURGIS: I believe Dr. Bullington has some information about how long the skin tests have remained positive.

DR. BULLINGTON: One report by Spink stated that some of the cases who gave a definite history of infection six to seven years ago, recently tested (in January, 1937), still had positive skin tests but the number of positive tests was low. Other individuals who ran tests on 82 cases in epidemic five years ago, found that all had negative skin tests.

DR. STURGIS: But it may be positive after several months or years?

DR. BULLINGTON: In all probability it is positive for several months and perhaps two to three years.

In December, 1936, and again in January and February, 1937, there were two rather severe epidemics in the state of Michigan: one at Rogers City and one at Capac. There were thirty-two cases at Rogers City and seventy-two at Capac. One of our patients came from Rogers City.

DR. STURGIS: What was the mortality?

DR. BULLINGTON: The only data available were from Capac. There were six fatalities; thirty-three severe cases; twenty moderately severe; thirteen mild cases.

We had one interesting family in our study. The father, who was very severely infected, died and the mother died of meningitis before she was admitted. There was one son on the medical wards, one daughter and one son on the pediatrics service; all had the disease quite severely.

DR. STURGIS: Can you tell us why there are two reactions to be expected—the immediate and delayed?

DR. BULLINGTON: The skin test is an allergic reaction. The antigen that we use is in two dilutions, 1:500 and 1:10,000, having been obtained from the Michigan State Department of Health. This is an extract of the trichinæ in Coca's solution. A control of Coca's solution should always be used. In cases of a duration of 18 days or longer an immediate reaction is expected, becoming positive within a few minutes and usually disappearing after two hours. If the disease is of shorter duration—four to twelve days—a positive reaction is to be expected only after twenty-four hours without any immediate reaction.

DR. STURGIS: What is the composition of Coca's solution, Dr. Sheldon?

DR. JOHN M. SHELDON: Coca's solution contains 2.5 grams sodium bicarbonate, 4 grams phenol and 5 grams of sodium chloride made up to 1,000 c.c. with distilled water.

DR. STURGIS: At a medical meeting last year, Dr.

Fred Smith reported a series of cases of myocarditis. He showed some sections supposedly having an obscure etiology. Dr. Weller, who was present, suggested that it appeared to be trichinosis of the heart.

DR. ARTHUR C. CURTIS: A few years ago, a small epidemic of trichinosis occurred in St. Joseph, Michigan. Dr. Kerlikowske and I happened to be in St. Joseph at that time. The members of one family that we saw were very ill. The onset of the illness had been with a high fever and a very severe diarrhea. They were being treated at that time as influenza. The blood differential count did not show an eosinophilia during the early period. When an eosinophilia developed, the local physician suspected the diagnosis and asked me to see the case. It was the most severe type of the disease, with profound diarrhea and considerable contracture of the muscles of the extremities. This latter feature was so great in the father, who was very well muscled, that he lay in a position as if he held heavy weights in each hand. His neck was also rigid. The father died, as did the mother. Only one survived, that being a young boy. Their temperatures were 105-106° F.

Diarrhea seems to be an index to extent of invasion. Minor invasion may occur without diarrhea.

DR. BULLINGTON: One patient in our series had Hirschsprung's disease. At autopsy his entire intestinal tract was heavily infested with trichinæ.

Anti-vivisection Again (New York Times)

It is an honorable medical principle that before a new method of treating disease is introduced it must be tested not only on animals but on animals closely related to man. To adopt any other procedure is to slip back to the Middle Ages, when even the dissection of cadavers was forbidden. Diphtheria, syphilis, pneumonia, pellagra, pernicious anemia, smallpox, all the afflictions caused by deficiencies in vitamins and hormones or by bacterial infection would still be insoluble riddles if it had not been for researches carried on with the aid of dogs, guinea pigs, rats and monkeys. If ever cancer and tuberculosis yield to medical treatment it will be solely because biologists and chemists have put their theories and their preparations to the test on animals. A billion rats is no price at all to pay for even the dimmest light on the cause of cancer.

Despite these oft-presented facts the anti-vivisectionists are making a new attempt to thwart experimental medical research, this time in California. There the voters will be asked on Nov. 8 to ballot on what is called a "humane pound law." Any one who keeps animals, except for sale, will become a "poundmaster." As such he may not use domestic animals for experimentation. If this proposal is approved the laboratories will have to breed their own animals, a procedure which is impractical because of the numbers that are needed. Moreover, it will be difficult for the makers of vaccines, vitamins, hormones and chemicals for medical use to test their products before placing them in drug stores, with the result that physicians could not be sure of the efficacy of the medicines that they prescribe. That thousands of half-starved, uncared for and unwanted dogs roam the streets and back yards to fall a prey to official dog-catchers and meet death in city pounds seems to be ignored.

"If you do not kill this measure it will kill you" is one of the slogans under which California biologists and medical men are fighting the "humane pound law." And the slogan is true. Interference with the right to reduce human suffering and to

lengthen the span of life by the most effective way thus far discovered is suicidal. Between dogs and babies the choice is easy. "An intelligence test for voters" the Californian measure is called by its sponsors. If there is any intelligence in California it will meet the test by repudiating a device for checking medical progress.

For Early Diagnosis of Cancer of the Cervix (New York State Journal of Medicine)

It is in this sense that we can consider the Schiller test for the detection of early cancer of the cervix. Following exposure of the part and cleansing, a generous quantity of Gram's solution is applied to the cervix and permitted to stay in contact with it for at least five minutes. Differentiation between normal and cancer cells is demonstrable by the deep brown color of the former, in contrast to the lighter color of the latter, which appear as whitish spots. This reaction is the result of the glycogen deficiency of cancer cells. According to De Lee, also Watkins, this test should be performed on women in middle age at least once yearly.

When it is realized that the incidence of cancer of the cervix is second only to mammary cancer, this simple test is a distinct advance in early diagnosis. By this means, treatment can be instituted at the earliest possible time and an increase in the number of "cures" can be hoped for. The simplicity of the test makes it readily applicable by the general practitioner.

Election Portents

(New York State Journal of Medicine)

It is true that the outcome of the elections may give thought to the Administration in Washington and persuade it to reform the reforms it has already instituted before undertaking additional hastily concocted experiments. If counsels of moderation prevail, there is hope that the profession will be given an opportunity to work out a sound, long-range plan in conformity to actual needs. The fact that the nation's health keeps reaching a new high, year after year, denies the existence of an emergency and proves that the present system is neither obsolete nor incapable of adaptation to new conditions and requirements.

Whatever the course followed at Washington, New York State should stand firm on the principles which have given it first place in public health. It leads the rest of the country in this field because it has kept the medical profession as its chief health adviser. Let it abandon this qualified counselor for inexperienced social theorists and it will become entangled in costly bureaucratic schemes which will lower the comparatively high standards of medical care enjoyed by workers here to the low level prevailing in most health insurance countries.

A Nazi Joke

It appears that Dr. Schacht visited Montagu Norman, governor of the Bank of England, and requested a loan of £50,000,000.

"What is your security?" asked Mr. Norman.

"Well, underground we have our unexploited iron and coal, and above ground, as a guarantee for this collateral, we have our *Fuehrer*."

"If you could reverse the conditions I might be able to accommodate you," replied the governor of the bank.—*Moncton Transcript*.



LIFE INSURANCE AS INVESTMENT

By HENRY C. BLACK and
ALLISON E. SKAGGS

EVER since the beginning of time, men in all walks of life have been engaged in a struggle for economic security. Since history began, we have sacrificed something Today that we may have something Tomorrow. Modern man stores money with which to buy goods. His savings are placed in savings banks, building and loan associations, stock exchanges, mortgage loans, real estate, investment trusts, government bonds, and life insurance.

The subject matter in this article is being confined to an analysis of life insurance as an investment. The statement is sometimes made that "life insurance is all right for protection, but isn't a good investment." Occasionally this statement is made by persons otherwise well informed on financial matters. The purpose of this article is to consider the attributes of an ideal investment in its application to the life insurance investment.

Our first consideration is *Safety of Principal*. In this respect there has never been the loss of a single penny to a policy holder by any mutual legal-reserve life insurance company, organized as such. The vast majority of life insurance companies in America today operate under the mutual legal-reserve system.

Our second consideration is *Reasonable Rate of Return*, consistent with dependable safety. In this respect it is found that the rate of return of the life insurance investment has been exceedingly good. Most companies guarantee 3% or 3½% under their contracts. The average rate has been considerably higher due to the payment of excess interest earnings under the mutual principle, over and above the guaranteed rate of return.

Our third consideration is *Regularity and Stability of Income*. The life insurance investment rate is likely to maintain the highest level of interest rates consistent with absolute safety. The life insurance portfolio represents an accumulation of purchases

over a long period of time, thus containing many long-running bonds of high yield, acquired at a favorable time.

Our fourth consideration is the *Avoidance of Managerial Care*. The handling of an investment account involves experience, skill, watchfulness, and power of analysis. Outside of the premium payment, the insured is freed of all managerial care such as investigation, analysis, appraisal, spread of risk, re-investment, and collection of income. Also burdens of a routine nature, responsibility, and worry.

Our fifth consideration is *Non-fluctuation in Value*. The life insurance investment, represented by the cash value of the contract, always remains at the promised amount. Life insurance is a depository institution, based upon the law of averages as it relates to investment. It is rated "A." The uncertainty in the price of a good bond is due, in part, to the certainty of the interest payment. In life insurance there is no fluctuation.

Our sixth consideration is *Proper Spread of Risk and Avoidance of the Dangers of Individual Selection of Investments*. The average investor in bonds, stocks, mortgage loans, etc., is subjected to much inconvenience and expense by way of investigation, collection of dividends, and the payment of minimum commissions. Most investors cannot diversify sufficiently to apply the law of averages. The life insurance portfolio represents the application of averages with respect to sheer number of investments, different economic interests, geographic location, maturity of obligations, and time of purchase. In life insurance there is no individual selection of investments. Any losses suffered are more than counterbalanced by gains in other directions.

Our seventh consideration is *Protection against Claims of Creditors*. Most states exempt life insurance payable to a designated beneficiary against the claims of creditors of the insured. Our eighth consideration is *Ready Marketability at Par*. A good investment has marketability. Life insurance meets this requirement in full, after the surrender-charge period has ex-

pired. In practice, the promised cash values are payable upon demand.

Our ninth consideration is *Suitability for Quick Borrowing*. The cash accumulations on a life insurance policy may be borrowed on without delay or publicity at a guaranteed rate of interest, usually 6%, for the full amount of the cash value. There is no demand for repayment. Compared to other forms of collateral, the margin of safety is exceptionally low.

Our tenth consideration is *Favorable Taxation Treatment*. The owner of a life insurance or annuity policy receives very favorable tax treatment at the hands of both the Federal and State governments, specific federal estate tax exemptions being granted in addition to the general exemptions. Similarly, state inheritance tax laws make similar exemptions available to the holder of life insurance and annuity contracts. It is the only form of property which can be made completely exempted from federal estate and state inheritance taxes by proper arrangement.

Our eleventh consideration is *Favorable Denomination*. Life insurance is issued in convenient units, both as to amount and mode of payment. It meets the situation of convenience for all people.

Our twelfth consideration is *Acceptable Duration*. Investors like investments that run over a considerable period of time. The life insurance investment meets this situation. Contracts ranging from five years to one's age of 96 years may be purchased. Further, once a policy has been purchased and the owner desires to mature the investment earlier, he has access to the cash surrender value.

Our thirteenth consideration is *Possibility of Speculative Gain*. Life insurance is non-speculative from the standpoint of the promised cash value. From the standpoint of a premature death, there is a large appreciation of principal. It is always in favor of the policyholder. In this respect it may be likened to a convertible bond.

Our fourteenth consideration is *Full Title to a Part*. The life insurance investment is not an instalment plan of investment. It is a series of separate, distinct entities, each one complete in itself and conveying 100% title thereto, after full legal

reserve surrender values are granted. Under instalment investments (bonds, stocks, real estate, etc.) this is not true—title does not pass until completion of the purchase-paying period.

Our fifteenth consideration is *Convenience of the Instalment Plan*. Although not constituting an instalment plan of investment in the strict sense, yet in form, life insurance gives all the advantages of an instalment plan of investment. If death interferes in the completion of the instalment plan, it is completed through the application of the decreasing term insurance factor.

Our sixteenth consideration is *Adequate State Supervision and Control*. One of the outstanding sources of investment protection is efficient state supervision and control. Here the life insurance investment stands unexcelled. This supervision and regulation is not limited to the statutes and departmental supervision of the state in which the Company is incorporated or domiciled, but is exercised in every state where the Company writes business. Some legal safeguards are: (1) approval of the wording of contracts; (2) regular state audits of Company books; (3) access to Company books; (4) character of investments strictly controlled; (5) the state determines the method of valuing assets held.

Our seventeenth consideration is *Adequate Publicity*. Adequate information is easily obtainable. The insurance departments require detailed periodic reports; the essential facts are then published. Policyholder's inquiries may be directed to the insurance commissioner of his state. The insurance press and insurance publishing companies give detailed analysis of the financial reports of the companies as they are issued.

Our eighteenth consideration is *Correct Psychology*. Life insurance enables the business and professional man to carry the same without devoting time from his business or profession. It represents the slow, sure, compound interest method of winning a competency, as contrasted to the speculative method.

Our final consideration is its *Adaptability to a Program Meeting Essential Investment Objectives*; namely, family and business reverses, old age income, liquidation emergencies, and postmortem emergencies.

DEPARTMENT OF SOCIETY ACTIVITY

L. FERNALD FOSTER, M.D., Secretary

FROM THE PRESIDENT-ELECT

BURTON R. CORBUS, M.D., Grand Rapids
President-Elect, Michigan State Medical Society

Nineteen hundred thirty-eight rapidly draws to a close. It has been a worrisome, threatening year. Happily, the war clouds of Europe seem less sinister. The general social and economic situation in this country at the moment shows distinct signs of improvement.

The year has brought to the profession of the United States a very definite threat of governmental control of the practice of medicine, vague threats in the form of actual plans which would reform (*sic*) the practice of medicine, veiled threats in the form of "if you don't, we will," and some threats not so veiled, as in the unusual and odd attempt to obtain a grand jury indictment of the American Medical Association on charges made public before the indictment was sought. Distinctly the profession has been put on the spot.

The claim is that the present method of the practice of medicine is outworn, yet with all its creaking, the old machine still seems to work pretty well in almost all parts of the country. It must be working reasonably satisfactorily if results may be taken as evidence, for there has never been a time when the mortality and the sick rate figures of this entire country has been so low as in 1938. This is especially true of Michigan and the neighboring state of Illinois.

We doctors recognize that there is a weakness in the distribution of medical care. We recognize that some of the traditional methods and activities of medical practice have become outmoded. We are not averse to change if in this change we can better combat disease, bring a higher degree of health to the people, and find a reasonably satisfactory life for ourselves. We are proud of the fact that in our battle against disease we have made such tremendous strides, and in this battle we have had less help from the government than the farmer has received for the fight against disease in barnyard animals. We would like to see an easier economic approach to the unexpected illness with its hospitalization and medical expenses.

If the reformers will just be a bit patient the profession itself will work out this problem. We have not been unconscious of the needs, and this is especially true of Michigan. Five years ago, we brought out our survey of medical service in Michigan. We had in mind then, as now, the need for certain changes in medical distribution. Our social objectives are just as definite as are the objectives of these altruists and a darn sight more practical. We know the patient's psychology, we know the patient's needs, we are confident that these needs can be supplied without the loss of traditional safeguards and guarantees, and without the elimination of the traditional and essential doctor-patient relationship. Government subsidies, yes, for the impoverished, for the prevention of disease, especially the contagions, for the education of the public in health hygiene in its various aspects, in some instances perhaps for assistance directed to the fur-

ther education of the practicing physician, and of course there must be subsidy for the care of the insane and the feeble-minded. But we hold that it is the right of the patient to choose his own doctor and pay him, and we are convinced that where the doctor is in competition for the favor of the patient, there develops a character and mental growth and skillfulness in his art which enables him to bring his patient the best service.

In 1939, it is likely that the profession will be confronted with the actuality of definite legislative action. Organized medicine is well represented by a committee of seven practicing physicians now serving as a liaison between the Society and government groups. I believe that we can feel confident that in these preliminary meetings this committee will show as much tolerance as the situation demands, as much courage as its obligations to the profession and its patients require when adverse and dangerous ideas are promulgated, and that they will be willing to make concessions where concessions must be made and where they can be made without sacrifice of principle and without sacrifice of those elements which make for self respect, satisfaction in work and happiness without which the individual doctor cannot grow in character and ability, and without which it will be impossible for him to give good service to his patient.

The Michigan profession is not tradition-bound. If there is a better way to practice medicine, we want to practice it that way. While we do not admit that the people of Michigan are suffering from a material lack of medical care, we do feel that there is a need for an improvement in distribution, and we believe that it is possible to work out a plan whereby the financial load incident to unexpected illness can be lightened without lessening the quality of service or interfering with the traditional ideals of medicine. Michigan will continue to exert every effort, through her postgraduate courses, to improve the quality of medicine. In this practical idealism Michigan has ever been among the leaders.

COUNCIL AND COMMITTEE MEETINGS

1. Friday, December 9, 1938—Contact Committee to Governmental Agencies—Owosso City Club, Owosso—6:30 p.m.
2. Sunday, December 18, 1938—Executive Committee of The Council—Hotel Statler, Detroit—12:30 p.m.
3. Saturday, January 7, 1939—Executive Committee of The Council, Hotel Statler, Detroit—6:30 p.m.
4. Wednesday and Thursday, January 18 and 19, 1939—The Council—Hotel Statler, Detroit—10:00 a.m.

EXECUTIVE COMMITTEE OF THE COUNCIL

HIGHLIGHTS:

1. Group Hospital Service and Medical Care Plans studied for presentation to M.S.M.S. House of Delegates.
2. Plans for M.S.M.S. Convention for 1939 approved; extra day (Friday) added.
3. Committees of The Council appointed.
4. T. F. Heavenrich, M.D., resigns as Councilor of 7th District.
5. Requisites for Associate Fellowship in Postgraduate Medical Education, M.S.M.S., widened.
6. Automobile License Plates for physicians, with "M.D." thereon, available in 1940.
7. Possibility of working out agreement with all interested groups re: liens in accident cases discussed.

October 19, 1938

1. *Roll Call.*—The meeting was called to order by Chairman P. R. Urmston at 2:30 p. m. in the Olds Hotel, Lansing, with all members present. Also present: Drs. H. A. Luce, B. R. Corbus, L. Fernald Foster, J. H. Dempster, M. H. Hoffmann, Henry Cook, R. H. Pino, Reuben Maurits, H. W. Pierce, Don W. Gudakunst, Jos. E. Barrett, and Executive Secretary Wm. J. Burns.
2. *Minutes.*—The minutes of the meeting of The Council, September 20, were read and approved.
3. *Financial Report.*—The financial report was presented and approved. The bills payable for the month were presented and on motion of Drs. Carstens-Moore were ordered paid. Analysis of actual expenditures for nine months of 1938 vs. Budget estimates was presented and studied.
4. *County Clerks' Assn. Resolution.*—The Chairman of the Contact Committee to Governmental Agencies, Dr. Cook, introduced Messrs. Stein and Gibbs who presented the resolution of the County Clerks' Assn. re: the pre-nuptial examination law. This was discussed generally by all present, including the Health Commissioner, who stated that no recent complaints had been received by his department relative to the law. It was felt that any necessary changes, which should be made in the future, should be the basis for joint consideration by all interested parties.
5. *Report from Committee on Distribution of Medical Care.*—Chairman Urmston reported on recent meeting with representatives of hospitals in Detroit on October 12, on the action of certain Hospital executives in Detroit in forming a group hospitalization corporation, and the action of the M.S.M.S. House of Delegates relative to group hospitalization, for presentation to a future special meeting of the M.S.M.S. House of Delegates. General discussion ensued, and resulted in a motion by Drs. Carstens-Greene that the Committee on Distribution of Medical Care be authorized and directed to make a further study, to present concrete plans to the Executive Committee of the Council, with a view to referring same to the House of Delegates, at the earliest possible moment. Carried unanimously.
6. The Chairman introduced Dr. Joseph E. Barrett, Director, Michigan Hospital Commission, who spoke re: the problems of administering the state hospitals of Michigan.
7. *Michigan State Nurses' Association.*—A letter from this association was read, relative to the principle of health insurance. The Executive Secretary was authorized to communicate with

the Secretary of the Nurses' Association.

8. *Resignation of Councilor T. F. Heavenrich.*—Dr. Heavenrich's letter was read. Motion of Drs. Carstens-Moore that the letter be referred to President Luce, with a view to making the appointment of his successor, for future reference to the Executive Committee of The Council; and that the M.S.M.S. Secretary draft a letter to Dr. Heavenrich thanking him for his years of service and counsel to the Michigan State Medical Society. Carried unanimously.

9. *Committee Reports:*

(a) The Joint Committee on Health Education, presented by Dr. Corbus: radio programs begin as of Nov. 1, 1938. Dr. Corbus presented the problem of talks on mental hygiene, which was discussed by Dr. Hoffmann. Dr. Corbus also presented the desirability of having the chairmen of various committees (Cancer, Maternal Health, Mental Hygiene, Radio, and Preventive Medicine) meet with the Joint Committee on Health Education, and with the Extension Division of the U. of M., to discuss talks before lay groups and radio talks, the expenses of meeting attendance to be borne by the Joint Committee. This was approved by the Executive Committee of The Council.

(b) Contact Committee to Governmental Agencies: Dr. Cook reported on the complaint that the physicians of Wexford County were being requested to help defray the expenses of employing a clerk to check welfare vouchers—this is being investigated.

Dr. Cook also reported on the possibility of working out an agreement with the insurance companies and the hospitals re: liens in accident cases; Dr. Cook's committee was authorized to proceed with this endeavor.

(c) Medico-Legal Committee's monthly report was presented; also the monthly report of the Maternal Health Committee, the Occupational Disease Committee, the Iodized Salt Committee, Advisory Committee on T.B. Control, Advisory Committee to Woman's Auxiliary, Mental Hygiene Committee and the Legislative Committee.

The Membership Committee report was approved, including authorization to reimburse the chairman \$25 for expenses incidental to stenographic work in 1937-38.

Special stationery to be printed for individual committees, was discussed, and motion made by Dr. Carstens-Greene that no special stationery be printed for individual committees, without the approval of the Executive Committee of The Council. Carried unanimously.

The suggestion of the Chairman of the Postgraduate Medical Education Committee, that the chairmen of the Preventive Medicine Committee, Cancer Committee, Radio Committee,

SOCIETY ACTIVITY

Maternal Health Committee, Mental Hygiene Committee, and Joint Committee on Health Education be made members ex-officio of the P. G. Medical Education Committee, as per supplemental report of the P. G. Medical Education Committee for 1937-38, was discussed. The Executive Committee instructed the Secretary to inform Dr. Bruce of an action that will satisfy his needs re: chairmen of these different committees attending meetings of the Committee on P. G. Medical Education.

The Chairman of the Committee on P. G. Medical Education referred for consideration the addition of two items to the requisites for certification for Associate Fellowship in P. G. Medical Education, M.S.M.S., these were discussed, and finally adopted as follows:

"11. Membership and regular attendance on accredited hospital staff conferences..... 2-10 units

"12. Awarding of Fellowships in P. G. Education to members of the Michigan State Medical Society on the basis of research and teaching activities of the Michigan Postgraduate Program; the first of such awards to be made in 1939."

Motion of Drs. Moore-Greene that the Executive Committee approve the addition of the two items as above listed, to the requisites for certification. Carried unanimously.

10. *Plans for 1939 Convention in Grand Rapids.*—Secretary Foster outlined the plans, including the same type of program as was successful in 1938, and extending the General Assemblies to include Friday, with an economic talk on Thursday evening; the technical exhibit to be arranged according to the labyrinth idea; the dates to be Sept. 18 to 22, 1939.

Motion of Drs. Brunk-Carstens that the above plans, based on the 1938 experience of general assemblies (except for Wednesday morning) be approved. Carried unanimously.

11. *State Constitutional Amendment No. 3.*—This was discussed, and on motion of Drs. Riley-Brunk, the principle of restricting appropriations, as was exemplified in Amendment No. 3, was approved.
 12. *Welfare Reorganization.*—A letter from the W.C.M.S., enclosing a discussion of the welfare reorganization bill, with the recommendation that same be forwarded in turn to all of the county medical societies in Michigan, was presented and discussed. The Executive Committee of The Council was agreeable that the W.C.M.S. send out these statements to the various county medical societies of Michigan, and instructed that the secretary so notify the W.C.M.S.
 13. *Upper Peninsula Medical Society Meeting.*—Plans for this meeting, being arranged by Dr. Foster and Mr. Burns at the request of the President of the U. P. Medical Society, were discussed.
 14. *Automobile insignia for Physicians.*—Possibility of automobile licenses with "M.D." thereon for doctors of medicine, was discussed. Motion of Drs. Moore-Greene that the Executive Secretary be authorized to contact the Secretary of State relative to the possibility of such insignia for 1940 and subsequent years. Carried unanimously.
- Membership cards for M.S.M.S. members was approved by the Executive Committee, beginning with 1939, as an aid to registration at the annual meeting.
15. *Crippled Children Commission's Fee Schedule.*—These schedules, to be promulgated as of Sept. 1, 1938, were discussed. The secretary was instructed to send a letter to the C.C.C.

and to the Auditor General, from the Executive Committee of The Council of the State Society, inquiring as to why these schedules were so delayed.

16. *Accident Insurance.*—The Executive Secretary was instructed to investigate the cost of accident insurance on Secretary Foster and Executive Secretary Burns, payable to the M.S.M.S.
17. *Reprints of Constitution and By-Laws.*—The Executive Committee authorized the reprinting of 300 copies of the Constitution and By-Laws of the M.S.M.S. for distribution to M.S.M.S. officers and the Presidents and Secretaries of county medical societies.
18. *American Medical Women's Association.*—Secretary Foster reported on the recent meeting of the Michigan Branch of this Association, and the misunderstanding resulting from the election.
19. *Adjournment.*—The meeting was adjourned at 8:15 p.m.

November 16, 1938, Meeting

1. *Roll Call.*—The meeting was called to order by Chairman P. R. Urmston at 3:30 p.m. in Statler Hotel, Detroit, with all members present; also Drs. Henry A. Luce, L. Fernald Foster, J. H. Dempster, Wm. A. Hyland, M. H. Hoffmann, G. C. Penberthy, R. H. Pino, and Executive Secretary Wm. J. Burns.
2. *Minutes.*—The minutes of the meeting of October 19 were approved as printed.
3. *Financial Report.*—The report was accepted and bills payable were approved and ordered paid, motion of Drs. Carstens-Brunk.
4. *Council Committees.*—The Committees as submitted by Chairman Urmston were approved, as follows:
 - Finance Committee:
 - H. R. Carstens, Chairman
 - V. M. Moore
 - H. H. Cummings
 - W. E. Barstow
 - T. E. DeGurse
 - County Societies Committee:
 - I. W. Greene, Chairman
 - Wilfrid Haughey
 - C. D. Hart
 - W. H. Huron
 - E. F. Sladek
 - Publications Committee:
 - A. S. Brunk, Chairman
 - J. E. McIntyre
 - F. T. Andrews
 - Roy H. Holmes
 - Geo. A. Sherman
5. *Date of County Secretaries' Conference* was left to the decision of the Council Chairman, Secretary, and Chairman of the Legislative Committee (set for January 15, 1939).
6. *Committee Reports were presented*, as follows:
 - (a) Maternal Health
 - (b) Health League
 - (c) Contact Committee to Governmental Agencies
 - (d) Occupational Disease
 - (e) Preventive Medicine
 - (f) Medico-Legal Committee
 - (g) Joint Committee
 - (h) Radio
 - (i) Mental Hygiene
7. *Treasurer's Report* was accepted.
8. *"Brochure on Burns"* was presented by Dr. G. C. Penberthy and approved, motion of Drs. Carstens-Brunk.
9. *1939 Annual Meeting Plans* were presented. Leases were ordered signed, motion of Drs. Carstens-Brunk.

10. *Additional Committee Appointments* as made by President Luce were approved on motion of Drs. Carstens-Riley.
11. *Expenses of Dr. R. G. Tuck* for Health League were ordered paid, motion of Drs. Greene-Carstens.
12. *Notification to all committee chairmen*, re: clearing of all meetings through the Executive Office and notices to be sent by Executive Office was to be made by the Secretary, motion of Drs. Carstens-Moore.
13. *Auto Emblems, M.D.*, were announced as available from Secretary of State in 1940.
14. *Vote of Thanks* was accorded Captain L. A. Potter for his activity in limiting cult practices, motion of Drs. Brunk-Greene.
15. *An editorial on Election Results* presented by Editor Dempster was referred to Drs. Luce, Corbus and Brunk for editing and approval, motion of Drs. Moore-Carstens.
16. *Wayne County Supplement and the Pneumonia Brochure* were ordered distributed to the County Secretaries at the January Conference, motion of Drs. Greene-Riley.
17. *The Need for a New Medical Practice Act* was discussed, and ordered referred to the Legislative Committee, motion of Drs. Moore-Brunk.

Recess for Dinner at 6:00 P.M.

Reconvened at 8:00 P.M.

18. *Committee on Distribution of Medical Care* reported on Group Hospitalization and Medical Care Plans:
 - (a) Enabling Act
 - (b) By-Laws

The set-up was ordered referred to an expert insurance man, the Insurance Commissioner and the Committee on Distribution of Medical Care for re-draft and reference back to the Executive Committee, motion of Drs. Moore-Brunk. A vote of thanks was accorded the Committee on Distribution of Medical Care for their fine work, motion of Drs. Carstens-Moore.
19. *Adjournment* at 11:00 p.m.

Minutes of Meeting of Officers and Committee Chairmen of the Michigan State Medical Society with Doctor Corbus, Chairman of the Joint Committee on Health Education, and Doctor Fisher of the University Extension Division, Detroit, Monday, November 26, Noon

Present: Doctors R. C. Moebig, representative Joint Committee; L. O. Geib, Preventive Medicine; Henry Luce; G. C. Penberthy, Radio; H. R. Carstens; A. L. Brunk; B. W. Carey, Children's Fund; A. B. McGraw, Cancer; C. A. Fisher; J. H. Dempster; B. R. Corbus.

The chairman stated that his purpose in calling this meeting was to develop a closer liaison between the officers of the State Medical Society, certain of its committees, and the Joint Committee, for the purpose of increasing the utilization of the facilities of the Joint Committee in presenting health education to the laity. He stated that the Joint Committee has ever been insistent that there shall be an authoritative basis for the material presented in health talks. It would seem that the responsibility for the presentation of this material should rest very definitely upon the various committees of the State Society.

The Joint Committee, through its affiliation with Doctor Fisher and the Extension Service of the University, has the machinery and offers a very special opportunity for the dissemination of health information.

The Committee is prepared to materially expand the activities of its Speakers' Bureau, and asks the cooperation of this group.

In the discussion which followed the following subjects and reports were considered:

1. The function of the various committees in re:
 - a. The selection of the personnel which should be based on geographical convenience as well as on the ability of the speaker to present his subject. The names of these speakers should be sent to Doctor Fisher for listing, or the Committee Chairman should be prepared to furnish the speaker on request of Doctor Fisher.
 - b. The group suggests that the Committees—Cancer, Mental Hygiene, Maternal Welfare, etc.—each prepare a series of talks, or outline of talks, to be placed on file in Doctor Fisher's office, to be sent to the proposed speaker, on which he might base his talk. (This plan was inaugurated by the State Dental Society and has proven most successful.)
2. A report by Doctor Corbus on the work of the Joint Committee last year.
3. A report by Doctor Fisher on the work of the Joint Committee so far this year, including lectures to lay groups and radio talks.
4. A report by Doctor Penberthy supplemented by Doctor Fisher, on the activities of the Radio Committee. Script for radio talks are sent out two weeks in advance. The broad-casting stations are cooperating satisfactorily and are apparently well satisfied with the excellent material Doctor Penberthy's committee has provided.
5. A discussion by Doctor McGraw concerning methods and technics to be used by the Cancer Committee in getting information, first to the public, and second, to physicians.
6. A discussion of the possibility of having the State Medical Society and Joint Committee sponsor classes in public speaking. It was suggested that the Joint Committee might help in the organization of such classes and both directly and indirectly help to make the project possible. The State Society has recognized the need for such instruction and is now bringing the matter before County Societies.

HOUGHTON-BARAGA-KEWEENAW

The December meeting of the Houghton County Medical Society was the occasion of a very enjoyable social gathering. Thirty-two persons, members and wives, sat down at 7 P. M. to a steak dinner, served at the Miscowaubik Club, Calumet, honoring the guest of the evening, Dr. S. G. Higgins, of Milwaukee. Dr. Higgins, who spent some time as a visiting ophthalmologist to various missions and communities in India, gave a very interesting talk on customs and dress in India, the conditions under which his work was done, and some insight into the social and economic conditions involved. His talk was illustrated by colored lantern slide views, and moving pictures of the people, their homes, and customs.

Dr. Higgins' collection of articles of dress and jewelry in native silver, proved very interesting, especially to the ladies. Beautiful Kashmir shawls, native saris, and hand-wrought silver bracelets and rings, were displayed.

While the doctors engaged in a short business session, opportunity was afforded for the subject of a medical auxiliary to be discussed by the ladies. Much interest was shown, and it was decided to hold a meeting for purposes of organization, on the evening of the next medical meeting.

C. A. COOPER, M.D., Sec.

JOUR. M.S.M.S.

WOMAN'S AUXILIARY

President—Mrs. P. R. Urmston, 1862 McKinley Avenue, Bay City, Michigan
Sec.-Treas.—Mrs. R. E. Scrafford, 2210 McKinley Ave., Bay City, Michigan
Press—Mrs. J. W. Page, 119 N. Wisner Street, Jackson, Michigan

THE month of November brought two Mid-winter Board meetings, that of the national Auxiliary, in Chicago, where Michigan was represented by Mrs. Urmston and Mrs. Scrafford, and the State Board meeting in Detroit which followed that of the National Board. The reports of these two meetings follow. These reports should be of interest to every member since it is through such meetings that our Auxiliary receives its sense of direction, determines its objectives and feels the inspiration that comes from joining with women throughout the country for a common purpose.

Mid-year Meeting of the National Board

The National Board meeting of the Woman's Auxiliary to the A.M.A. was held at the Palmer House in Chicago, November 11, 1938, at 10:00 A. M., and was called to order by the President, Mrs. Tomlinson. Thirty-two answered roll call.

Five past presidents and three directors were present, also Mrs. Samuel Clark Red, who conceived the idea of a national Auxiliary.

In Mrs. Tomlinson's address she stressed organization, spoke of the stability and growth of the auxiliary and complimented us all on our coöperation and enthusiasm.

Mrs. Rollo K. Packard, Chicago, president-elect, spoke briefly but gave no report. Then followed the report of the first vice-president, Mrs. Frank N. Haggard, of San Antonio, Texas, Organization chairman.

May I explain at this point that the vice-president's committee is composed of the 2nd, 3rd and 4th vice-presidents, located in strategic points, thereby covering the entire field of activities.

Mrs. Haggard spoke of the importance of personal contacts, lack of interest in medical societies in some unorganized states, of difficulties, particularly in the Western states, because of the great distances to travel.

As Historian, Mrs. A. E. Barnes of Texas reported her work of completing data on outstanding activities of the Auxiliary from 1934 to 1939, to be added to the Pamphlet entitled "The First Twelve Years"—1922 to 1934. It was decided to have a committee check, word by word, this addition as there were many discrepancies in the recording of the original pamphlet.

The meeting adjourned for luncheon. The guest speaker, Dr. Wright, chairman of the Advisory Council and a Trustee of the A.M.A., was unable to be present, detained at an important meeting. In his place, Dr. Bauer, A.M.A., gave the address, assuring us that in promoting *Hygeia* we are in no sense book agents, but giving to the public information obtainable in no other magazine and so necessary at this time.

He also urged us to be members of as many lay organizations as possible and to present authentic information on Socialized Medicine. A most instructive address.

The meeting continued at 2:00 P. M.

Report of special committee on membership awards was given by Mrs. Herbert Henkel, Illinois. She asked for advice from the Board to determine upon what basis this award was to be given. It was finally decided to be on a percentage basis.

There was much discussion as to awards, and a motion was made and carried that no awards in the

future could be given without the consent of the president and Board members.

Mrs. Lester, *Hygeia* chairman, reported her goal for this year was 15,000 subscriptions.

She asked Mrs. Herbert, also of Tennessee, to explain how they were able to place 6,182 subscriptions of eight months in Tennessee. Mrs. Herbert said a Bill supported by the Public Health Commissioner and the Commissioner of Education was passed by the legislature. Through this bill they were able to place *Hygeia* in every school in Tennessee.

The state presidents' reports followed. Outstanding were Utah, Pennsylvania, New York, Missouri and Texas.

Dr. Wright addressed us just before adjournment. He said his message had been given by Dr. Bauer, but he wished to assure us of his coöperation. He emphasized the thought that each state has its own problem and wished us every success.

A very successful meeting adjourned at 6:00 P. M.

Respectfully submitted,

Mrs. P. R. URMSTON, *President*

Mid-year Meeting of the State Board

The Mid-year Board Meeting of the Woman's Auxiliary of the Michigan State Medical Society was held at the Woman's City Club, Detroit, Michigan, November 18, 1938.

The meeting was called to order at 2:00 P. M. by the president, Mrs. P. R. Urmston.

The following answered roll call: Officers and chairmen: Mrs. Urmston, Mrs. Christian, Mrs. Walker, Mrs. Scrafford, Mrs. Hicks, Mrs. Collisi, Mrs. Page, Mrs. Andrews, Mrs. Bond, Mrs. Whitney. County presidents: Mrs. Scrafford, Mrs. Wenke, Mrs. Alter, Mrs. Butler, Mrs. Bond, Mrs. Sutton, Mrs. Geib.

The president, Mrs. Urmston, read her report of the National Board meeting held in Chicago, November 11, which was approved.

The minutes of the pre-convention and post-convention meetings were read and approved.

The Treasurer's report showed a balance of \$211.09 and was approved. Reports of the Standing Committees followed. Mrs. Jaenichen's report was read by Mrs. Harvey. Reports were also given by Mrs. Collisi, Mrs. Walker, Mrs. Page, Mrs. Andrews and Mrs. Bond. Mrs. Butler reported on exhibits.

There was no unfinished business. New business was in order.

Mrs. Urmston reported a communication from Dr. Foster to the effect that the State Medical Society felt that, owing to our growth as an Auxiliary, we should finance all of our activities. He also suggested badges for all members for the State Convention. Mrs. Urmston then proposed, due to these suggestions, we discuss a plan for a budget of our expenses. Mrs. Walker moved, seconded by Mrs. Geib, to appoint a committee of five, headed by the president and treasurer, to budget expenses. Motion carried.

Mrs. Andrews moved, seconded by Mrs. Christian, to leave the purchase of badges to the Budget Committee. Motion carried.

Mrs. Geib moved, seconded by Mrs. Collisi, that only president-elect be sent, with expenses paid, to

the national convention. This motion was discussed and finally amended by Mrs. Whitney, seconded by Mrs. Hicks, that both the president and president-elect be sent to the national convention whenever finances permitted. Motion carried as amended.

The President then appointed the Budget Committee—Mrs. Whitney, chairman, assisted by Mrs. Hicks and Mrs. Page—their conclusions to be sent to the president and treasurer for their approval.

As there was no further business, Mrs. Sutton moved, seconded by Mrs. Andrews, that the meeting be adjourned. Motion carried.

Respectfully submitted,
 MRS. R. E. SCRAFFORD, *Secretary*

Bay County

The Auxiliary to the Bay County Medical Society held its first meeting of the year on October 12, at the Bay City Country Club. Twenty-six members who were present were served an enjoyable buffet supper. This was followed by a business meeting. Outstanding among topics discussed were plans for a rummage sale to be held in the near future. Money was needed to "carry on," for the treasury was getting that "lean and hungry look."

Within a few days following the meeting, the committee placed in charge of the rummage sale had made arrangements with a local merchant to use a vacant store building, rent free, on October 20 and 21. Considering the fact that we had never sponsored such a venture before, the response of all members in contributing and collecting material was very fine. As a result, our treasury is bulging with the seventy-five dollars netted as a profit.

At the November meeting, held on November 9, at the home of Mrs. M. R. Slattery, Mr. William J. Burns, Executive Secretary of the Michigan State Medical Society, outlined current proposals before American and Michigan Medical Societies, particularly the five major recommendations made by the investigating committee headed by Josephine Roche at Washington, D. C., in July. He analyzed the significance, strength and weakness of each proposal, suggesting changes which might make them more effective. The address was most helpful in building up a comprehension of the problems of the medical profession and an intelligent understanding of these problems.

MRS. LYNN J. STINSON,
Corresponding Secretary

Kalamazoo County

Mrs. Kenneth Crawford entertained the Woman's Auxiliary to the Academy of Medicine on November 15, at a coöperative dinner, thirty-six members attending.

Mrs. W. W. Lang gave an interesting report of the State meeting held in Detroit.

Following the business meeting, the group enjoyed a review of Margaret Halsey's book, "With Malice Toward Some," which was ably presented by Mrs. Gerald Rigerink.

Members brought a shower of jams and jellies to be distributed in Community Christmas baskets.

(MRS. HUGO) BARBARA AACH,
Press Chairman

Kent County Woman's Auxiliary

With 158 members, the largest number ever to have affiliated, Kent County Auxiliary is enjoying a most successful year. Meetings have proved extremely interesting and the wide variety of entertainment is found to be a great drawing card for membership and attendance.

In addition to the delightful talk given by Mrs.

P. L. Thompson, an auxiliary member, on her recent round the world voyage, our November meeting honored our past presidents: Mrs. Thomas C. Irwin, Mrs. Burton R. Corbus, Mrs. A. Verne Wenger, Mrs. Henry J. Pyle, Mrs. Robert H. Denham and Mrs. Carl F. Snapp, who all spoke briefly and entertainingly on various occurrences taking place during their particular regime.

The December program will also be conducted by members and will feature the play reading of "On Borrowed Time" under the direction of Mrs. Ralph L. Fitts.

All standing committees are functioning excellently, and among achievements recently accomplished is the placing of 172 six month subscriptions of *Hygeia* in the county rural schools and the beginning of a collection of printed articles pertaining to medical legislation.

JANE R. FRANTZ,
Press Chairman

Jackson County

The November meeting of the Women's Auxiliary was a social one, Mrs. W. E. McGarvey, of the social committee, being chairman. The members met at the home of Mrs. T. E. Schmidt, and were served a 6:30 dinner. The committee in charge of the dinner was composed of the following members: Mesdames C. D. Munro, chairman, R. M. Cooley, W. W. Lathrop, R. J. Hanna, and M. J. McLaughlin.

Mrs. R. H. Alter, president, conducted a business meeting, at which time suggestions for a project for this year were talked over and placed in the hands of the project committee. Reports of the secretary and treasurer were also read at this time.

The remainder of the evening was spent in playing bridge, the prizes being won by Mesdames Shaeffer and Porter.

ANNA HYDE SHAEFFER,
Press Chairman

Saginaw County

Mrs. Robert Jeanichen was hostess to forty members of the Saginaw County Medical Auxiliary, Tuesday evening, November 15.

During a short business meeting it was decided to place *Hygeia* in twenty rural schools.

Mrs. William English, Legislative chairman, gave a comprehensive résumé of the present trend toward "socializing medicine."

Mrs. Aaron C. Button was winner of the door prize drawn during the social hour. Refreshments were served by a committee of which Mrs. Henry J. Meyer was chairman.

MRS. MILTON G. BUTLER,
Press Representative

Washtenaw County

The newly organized Washtenaw County Medical Society Auxiliary held its second dinner meeting on November 8, at the Michigan Union. Dr. Claire E. Straith, a sponsor of the local auxiliary, and Mrs. Straith of Detroit were honor guests.

After a short business meeting, Mrs. Straith, a former president of the Wayne County Medical Society Auxiliary, told of the present projects and accomplishments of that group.

Later the County Medical Society joined the ladies in hearing Dr. Straith's splendid talk on plastic surgery.

A Christmas tea at the home of Mrs. R. Bishop Canfield on December 13, and a joint society dinner dance in February are included in the winter plans by the Auxiliary.

(MRS. C. HOWARD) CECILIA GRAHAM ROSS,
Press Chairman

JOUR. M.S.M.S.

**MICHIGAN'S DEPARTMENT
OF HEALTH**

**DON W. GUDAKUNST, M.D., Commissioner
LANSING, MICHIGAN**

PUBLIC HEALTH CONFERENCE

The Eighteenth Annual Michigan Public Health Conference, held November 9, 10, and 11 at Grand Rapids, attracted an attendance of well over 1,200 members of the health professions and interested lay persons. The official registration of 991 persons included 50 health officers, 69 physicians, 50 dentists and dental hygienists, 449 public health nurses, 65 sanitarians, 148 lay members of county health committees, 22 laboratories, 14 out-of-state visitors and 124 representatives of miscellaneous professions.

The conference opened Wednesday afternoon with an address of welcome by Dr. Don W. Gudakunst, state health commissioner. Dr. Carleton Dean, of Charlevoix, president of the Michigan Public Health Association, presided at the session. G. Robert Koopman, assistant superintendent, State Department of Public Instruction, the first of the principal speakers, outlined the scope and objectives of the revitalized emphasis upon health instruction in the schools which has become a fundamental philosophy underlying the Michigan Curriculum Program. "The present plan," he said, "consists briefly of making a direct attack upon the problem in close coöperation with the State Department of Health and with the direct support of the social agencies, professional agencies, and foundations interested in health education. The prospects of considerable success seem brighter than at any previous time."

Miss Naomi Deutsch, director of public health nursing, Federal Children's Bureau, termed the current national maternal and child health program "the American adventure in neighborliness." "There are approximately 12,500 maternal deaths in the United States each year, of which one-half to two-thirds might be prevented if facilities for adequate medical care could be everywhere available." "The plan for a national health program to offer more adequate health protection and medical care, shaped by the experiences now being built up to extend and strengthen health programs should bring assured returns in economic stability, in national well-being, and in individual contentment throughout our country," Miss Deutsch concluded.

Discussing "The Role of Government in the Provision of Medical Care," Dr. Gudakunst pointed out that government's rôle is not the practice of medicine, but rather to provide *for* medical care. "Socialized medicine, such as developed in many parts of the world, has no place in our scheme of things in this country." "State departments of health," the commissioner continued, "in fact, all health agencies, have become concerned with this question of government providing for medical care. Health workers are, of course, concerned. They have traditionally, and for many, many years, been concerned with those factors contributing to the death rate, with environmental sanitation and with the spread of communicable diseases, but there is little satisfaction when you keep people alive from one cause and see them die from another cause. Therefore, it is quite logical that health workers have concerned themselves with this problem. Not that they have had hope at any time of putting over a program where they, themselves, would be engaged in the practice of medicine, but we do hope that they can undertake some leadership, on a national and state-wide basis and in their own local

communities, in bringing together the various forces that are existing in those communities so that more and adequate service can be administered. * * *

"Government is concerned, therefore, mainly with the payment for services that the physician has to render—not so much concerned with the quality. Of course, interested; of course, very much concerned in one way, but not concerned to the point where government can say, 'We,' or as more frequently happens, 'I am able to practice medicine much better than anyone else.' That is not government's concern. It is government's concern to make available the money for the payment of services which the physician has to render. Any relationships that are worked out must be on an equitable and satisfactory basis, satisfactory to the medical profession itself. There must be reasonable pay for services. We cannot continue, as we have in many places in some of the feeble attempts to meet this problem, to pay the physician at a very small fraction of what his services are worth. When we do that we quickly prostitute the practice of medicine. When an office service is paid for at the rate of fifteen cents, the patient gets fifteen cents worth of service; and obstetrical service cannot be rendered for the payment of a few dollars. The relationships that are worked out for the payment of these services must be equitable and reasonable for the physician."

Dr. Carl E. Buck, field director of the American Public Health Association, speaking on "Organizing Your Community Resources for Health," urged the directors of every local health department to secure the appointment of a public health committee by the local medical society. "Most of the difficulties that occasionally arise between the public health group and the organized medical profession would be avoided if we had a close liaison between the public health department and the public health committee of each local medical society," he declared.

Dr. William S. Sadler, director and chief psychiatrist of the Chicago Institute of Research and Diagnosis, addressed the enthusiastic Wednesday evening session on the subject of "Mental Hygiene." Psychiatry today," he declared, "is something more than medical psychology. True, it started that way, but today psychiatry is what I prefer to call 'Personology.' * * * It is the person we are dealing with—more and more it is the whole person. Sooner or later some university will establish courses and will grant degrees of D.P.—Doctor of Personology. They will be men and women trained to look at the whole functioning human being in his social situation, with his economic difficulties, with his family obligations, with his personality and individual peculiarities. Until such time as we do have doctors of personology, I believe that the physician—the medical men as a whole under the leadership of psychiatrists—must see to the leadership of the mental hygiene movement. And we want, increasingly, to feel that the public health workers of North America are with us, that they understand the objectives and aims of psychiatry as a highly specialized medical discipline, and mental hygiene as the lay movement symbolizing and focalizing the mental hygiene consciousness of the public at large."

Dr. Henry A. Luce, president of the Michigan State Medical Society and assistant professor of neurology and psychiatry at Wayne University, presided at this session and introduced Dr. Sadler.

"In every local area in Michigan there should be a whole-time health service—either on a city, county or district basis, manned by personnel trained and experienced in the art of health preservation," declared Dr. Henry F. Vaughan, Detroit health commissioner, who addressed the annual dinner meeting. "There exists in the medical and dental pro-

fessions a latent desire and ability to serve the public in health which must be activated and integrated into programs of community health service, both on a local basis and effectively interwoven with a state-wide health program."

Speaking on "Recent Progress in the National Campaign for the Control of Syphilis," Assistant Surgeon General R. A. Vonderlehr declared that 27 states now have a separate division or section of venereal disease control, and that 29 states have a full-time venereal disease control officer. He commended Michigan's plan for the free distribution of drugs for the treatment of syphilis and the provision of free laboratory diagnostic tests for syphilis for all persons. Eight other states besides Michigan have recently enacted laws requiring a serodiagnostic test for syphilis of applicants for marriage licenses, and three states, including New York, New Jersey and Rhode Island, have laws providing for the discovery and treatment of syphilis in pregnant women, Dr. Vonderlehr reported.

Dr. Burton R. Corbus, president-elect of the Michigan State Medical Society, presided at the Thursday afternoon session. Dr. J. Orton Goodsell, president of the Michigan State Dental Society, also spoke at this session on "The Contribution of Oral Surgery to Public Health."

Dr. Gordon B. Myers, professor of medicine at Wayne University College of Medicine, discussed the use of antipneumococcic serums in Michigan's pneumonia control program. The Michigan Department of Health is now supplying sera to physicians for the treatment of Types I and II pneumonia cases. Dr. Allan J. McLaughlin, of the University of Michigan, outlined a basic program of sanitation, which, he said, must be built upon sound local foundations to succeed in state and nation. Advances in the production and use of pertussis vaccine were discussed by Dr. Pearl Kendrick, associate director of Michigan Department of Health Laboratories. The epidemiology of the recent Shiga dysentery outbreak in Shiawassee county was explained by Dr. Berneta Block, staff physician of the Michigan Department of Health.

At the annual luncheon business meeting of the Michigan Public Health Association, Dr. John L. Lavan, Grand Rapids health officer, was elected president of the association. Other officers include Dr. M. R. Kinde of the W. K. Kellogg Foundation, Battle Creek, vice president; Miss Marjorie Delavan, director, Bureau of Education, Michigan Department of Health, secretary-treasurer; and Dr. Don W. Gudakunst, state health commissioner, representative on the governing council of the American Public Health Association. Dr. Kenneth R. Gibson of Detroit was elected to fill the vacancy on the board of directors. The association voted to hold its next annual meeting in Lansing. Resolutions were adopted honoring the memory of Dr. Richard M. Olin, former commissioner of the Michigan Department of Health, and Dr. U. G. Rickert, president of the State Council of Health, both of whom died during October.

REGIONAL CONFERENCES OF HEALTH DEPARTMENTS

Regional conferences of local health departments are being arranged by the Michigan Department of Health in cooperation with the full time health officers for the purpose of correlating the activities and improving the services of the state and local health departments. The conferences will be held once every two months in each of the various districts which have been organized on a regional basis.

The first of the conferences was held December 7 at Big Rapids with Dr. M. C. Igloe, director of

the Mecosta-Osceola Health Department, as host. The counties represented at this conference included Mecosta, Osceola, Clare, Gladwin, Arenac, Isabella, Midland and Bay. All staff members of these local health departments were invited to participate. Discussion topics and leaders were as follows: venereal disease, Dr. R. S. Dixon; tuberculosis, Dr. A. W. Newitt; pneumonia, Dr. A. B. Mitchell; and administrative problems, Dr. Don W. Gudakunst.

The Northern Michigan Regional Health Conference was held December 14 with health department staffs from Kalkaska, Crawford, Missaukee, Roscommon, Wexford, Alcona, Iosco, Oscoda, Ogemaw, Alpena, Cheboygan, Montmorency, Presque Isle, Antrim, Charlevoix, Emmet and Otsego counties participating. A conference of the Western Michigan departments, including Manistee, Mason, Lake, Oceana, Newaygo, Muskegon, Ottawa and Kent counties, has been scheduled for December 21. Conferences are also being arranged for the Upper Peninsula departments, the Eastern Michigan District and the Southeastern Michigan District.

STATE COUNCIL OF HEALTH MEETS

Dr. Robert B. Harkness, director of the Barry County Health Department, was elected president of the State Council of Health at its advisory session with the state health commissioner in Lansing, November 23. Dr. Harkness succeeds Dr. U. G. Rickert of Ann Arbor, who died October 22. Dr. P. C. Lowery of Detroit, former president of the Michigan State Dental Society and vice president of the American Dental Association, has been appointed a member of the Council to serve the unexpired term of Dr. Rickert, which ends June 30, 1941. Members of the Council discussed proposed changes in the department's rules and regulations for the control of communicable diseases. Further consideration of this subject will be undertaken at a Council meeting scheduled for December 13.

DR. BUCK TO REPORT SOON

A series of preliminary reports to selected groups, based on a survey of Michigan's state and local health services and needs, is being made by Dr. Carl E. Buck, field director of the American Public Health Association, who has been conducting the survey during the past six months. Dr. Buck's final report is nearing completion and will be made public in the near future. Copies of the report and the recommendations of the survey committee will be made available to the officers of the Michigan State Medical Society.

THE FIRST YEAR OF THE PREMARITAL EXAMINATION LAW

Discussing the first year's experience under the 1937 Antenuptial Physical Examination Act before the annual Public Health Conference at Grand Rapids, Dr. W. J. V. Deacon, director of the Bureau of Records and Statistics, reported a decrease of 44 per cent in marriages during the early months of operation of the new law.

"It was to be expected that marriages would decline in number during the early months of operation of this act before the public became fully informed of its purposes and the details of its administration. During the first nine months of 1938 while the marriage law was in operation, the Michigan Department of Health received reports of 20,681 marriages. This compares with reports of 37,242 marriages during the corresponding nine months of 1937 previous to the operation of the

(Continued on page 70)

IN DEPRESSIVE STATES

In depressive states, the suitability of 'Benzedrine Sulfate' (amphetamine sulfate, S.K.F.), as well as its correct dosage, must be determined for the individual patient.

Tentative classifications, however, suggest that 'Benzedrine Sulfate' is most likely to be of use in conditions characterized by diminution of capacity for activity, and that it is apt to be contraindicated in anxiety states accompanied by agitation. In depressive psychopathic states the patient should be institutionalized during the administration of 'Benzedrine Sulfate'.

Initial dosage should be small, ranging from a minimum of 2.5 mg. ($\frac{1}{4}$ tablet) to 5 mg. ($\frac{1}{2}$ tablet). These should be regarded as test doses, and if no effect is obtained from the smallest amount given, the dosage may be progressively increased until a definite effect manifests itself. Usually it is unnecessary to give more than 10 mg. at a single dose. Careful medical supervision during this test period is particularly desirable.

When the correct dosage has been determined, it may be given two or three times a day, bearing in mind that administration in the late afternoon or evening may interfere with sleep. When divided doses are required, the specially grooved tablet may be broken and one-half or one-quarter tablet given.

The effects of 'Benzedrine Sulfate', whether desirable or undesirable, are usually apparent with the first few doses. If there are undesirable effects 'Benzedrine Sulfate' obviously should be discontinued.

BENZEDRINE SULFATE TABLETS



Each 'Benzedrine Sulfate Tablet' contains amphetamine sulfate, 10 mg. (approximately $\frac{1}{8}$ gr.)

The Council on Pharmacy and Chemistry of the A. M. A. has adopted amphetamine as the descriptive name for α -methylphenethylamine, the substance formerly known as benzyl methyl carbinamine. 'Benzedrine' is S.K.F.'s trademark for their brand of amphetamine.

SMITH, KLINE & FRENCH LABORATORIES, PHILADELPHIA, PA.

Established 1841

law. The 1938 figures do not include the final returns from a few counties, but these returns would not significantly change the comparative figures.

"To what extent this has been a loss is, of course, a matter for debate. Economic and social factors other than the new marriage law have a direct reaction upon the marriage rate and must be considered in explaining the decline in the early months of 1938. To what extent this decline means fewer marriages of Michigan residents is a question, since it is true, no doubt, that many persons have gone to other states to be married. I have been glad to notice the reaction to this practice in some cases, however, as persons seem to lay themselves open to the criticism that they went out of the state to be married because they were afraid to take the physical examination. It is also encouraging to note that marriages appear to be increasing in the later months of the year, indicating greater acceptance of the safeguards involved in the Michigan law.

"The Michigan Department of Health laboratories have made 33,584 serological tests for syphilis for marriage license applicants. Of these, 405 were positive for syphilis and 60 were doubtful, reported as plus-minus. The registered laboratories, which are authorized to make these tests, do not report the number of tests which they make but they did report 245 positive and 4 as doubtful. Thus, it appears that slightly more than 1 per cent of all applicants have shown positive indications of syphilis.

"This means that through the operation of this law we have discovered 650 persons who could not be permitted to marry. If the operation of this law has uncovered 650 cases of syphilis it has been well worth while. Many of these cases claim that they had no knowledge of ever having had this disease. Be this as it may, the fact remains that 650 persons could not marry in this state because of syphilitic infection. Certainly this redounds to the benefit of the future generation, and if at least some of these cases were put under treatment, the gain is still greater."

MONTHLY MORTALITY REVIEW

Mortality reports for the first ten months of 1938, compiled by the Bureau of Records and Statistics, show a decline in total deaths from 44,819, in 1937, to 41,707 this year. Infant mortality, too, is down from 3,673, in 1937, to 3,564, in 1938. Maternal deaths slightly exceed last year's figures, when an all-time low rate for this cause was set, but with the current increase in births, the 1938 maternal mortality rate will compare favorably. There were 276 maternal deaths last year, compared to 291 this year. Births have increased from 76,435, in 1937, to this year's total of 80,590 for the ten-month period.

Comparative mortality figures for the major communicable diseases, in 1937 and 1938, are indicated in the table below:

Communicable Disease Mortality
1937-1938

Disease	October, 1938	October, 1937	10 Months, 1938	10 Months, 1937
Pneumonia	218	274	2,271	3,403
Tuberculosis	149	160	1,616	1,816
Typhoid Fever	1	2	20	25
Diphtheria	5	12	32	57
Whooping Cough.....	7	9	101	114
Scarlet Fever	3	8	74	132
Measles	0	1	96	9
Smallpox	0	0	0	1
Meningitis	2	2	18	37
Poliomyelitis	1	5	8	48
Undulant Fever.....	0	0	1	0
Syphilis	40	30	318	328
Gonorrhea	0	0	6	7

VENEREAL DISEASE CONTROL COURSE PLANNED

The Michigan Department of Health is making arrangements for a course in venereal disease control for health officers. Plans, as now contemplated, call for a week's intensive instruction in the epidemiological and clinical phases of venereal disease control. The course will be given twice to meet the convenience of all health officers.

CORRESPONDENCE

We received the following communication from Dr. J. R. McIntyre, secretary of the Michigan State Board of Registration in Medicine, Lansing. This interesting letter from the office of the attorney general of the state is self-explanatory.

November 16, 1938

Dear Doctor McIntyre:

We have your letter of November 10 relative to an inquiry directed to your office as to the right of the medical personnel on the staff of hospitals operated by the United States in Michigan to practice medicine.

Section 8 of the Medical Practice Act, being Act 237, Public Acts of 1899, as amended, provides, in part, as follows:

"This act shall not apply to the commissioned surgeons of the United States army, navy or marine hospital service, in actual performance of their official duties,"

It is our opinion that no Michigan license can be required of physicians employed by the Federal government in Michigan whose practice is confined exclusively to the performance of their official duties.

By being so exempt, however, such physicians are not thereby authorized to engage in other practice; and, should any such physician propose to engage in practice outside the scope of his official duties, he is required to be licensed by the Michigan State Board of Registration in Medicine, as any other physician.

We trust the foregoing answers your question.

Very truly yours,

RAYMOND W. STARR
Attorney General

By JOHN H. BRENNAN
Deputy Attorney General

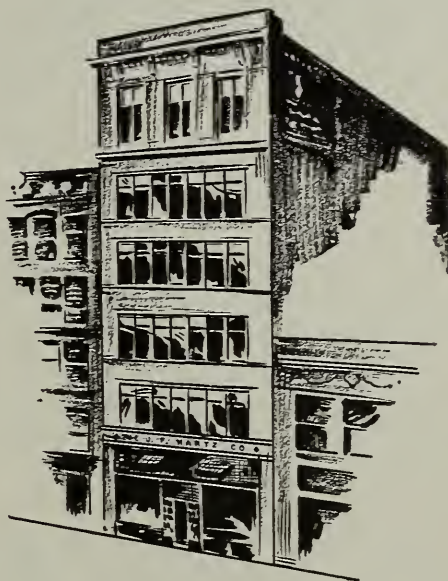
IN MEMORIAM

Dr. S. W. Woyt

Dr. Stanley W. Woyt, a young physician of Jackson, died suddenly as the result of an automobile accident, on November 23. A graduate of the Wayne University Medical School, class of 1930, Dr. Woyt spent his internship in Fort Wayne, Indiana, practiced for a short time in Detroit, and in 1935 opened an office in Jackson. He is survived by his mother and sister.

HARTZ

7 Floors of
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General News And Announcements

100 Per Cent Club for 1939

Menominee County Medical Society

Muskegon County Medical Society

The above county medical societies have paid 1939 dues for 100 per cent of their membership. Dues for 1939 are \$12.00 and are now payable. See your County Medical Society Secretary today and help make your Society 100 per cent paid up for 1938.

T. Y. Ho, M.D., of St. Johns was re-elected Secretary of the Clinton County Medical Society for the sixteenth consecutive time.

* * *

T. W. Thompson, M.D., of Traverse City, spoke on "Mental Health with Special Reference to Mental Hygiene," at the annual meeting of the Alpena County Medical Society on December 18, in Alpena.

* * *

C. D. Brooks, M.D., Detroit, addressed the St. Clair County Medical Society at its meeting of December 13 on the subject of "Diagnostic Problems of Acute Abdominal Conditions."

* * *

The International College of Surgeons will hold its Assembly in New York City on May 22, 23 and 24, 1939. Edward Frankel, Jr., M.D., 217 East 17th St., New York, has been appointed General Chairman.

* * *

Cyrus P. Sturgis, M.D., and Frank H. Bethell, M.D., of Ann Arbor, presented an illustrated lecture on "Anemias of Pregnancy" before the Hillsdale County Medical Society at its meeting of December 8.

* * *

The Gratiot-Isabella-Clare County Medical Society's meeting on December 15 was "Ladies' Night." All dentists, editors and hospital supervisors of the three counties were invited guests. The speaker of the evening was L. Fernald Foster, M.D., of Bay City.

* * *

Exhibit space at the 1939 Grand Rapids Convention is being rapidly reserved. The Seventy-Fourth Annual Meeting will be held at the spacious Civic Auditorium which can adequately accommodate every phase of the Convention. The dates are September 18, 19, 20, 21 and 22, 1939.

* * *

The Wayne County Medical Society developed a clever "Inventory" which was distributed to its membership. The "Inventory" set forth in an attractive and interesting manner the scope of activities of the Society and the services rendered to the individual members.

* * *

The Ottawa County Medical Society held its annual meeting in Holland on Thursday, December 15. Members of the dental profession were invited guests. Councilor Vernor M. Moore of Grand Rapids and Secretary L. Fernald Foster of Bay City were guest speakers.

The American Medical Association has initiated a clip-sheet service. Each week the clip sheet, called "American Medical Association News," containing several pages of official announcements, abstracts and condensations of original articles and editorials appearing in *The Journal of the AMA* and *Hygiea*, is sent to publishers.

* * *

A handbook of useful information for members is being developed by a special committee of the Wayne County Medical Society. It will include the Society's By-laws, committees, various rules and procedures, lists of clinics, diagnostic facilities, approved hospitals and sanatoria, certain social agencies, synopses of laws regulating practice, and many other items of information useful to the practitioner.

* * *

G. H. Belote, M.D., of Ann Arbor, is guest speaker on the program of the International Post-Graduate Medical Assembly of Southwest Texas, which will be held in San Antonio on January 24, 25, 26, 1939. Doctor Belote will deliver three lectures on (a) "Hormone Studies in Acne Vulgaris," (b) "Modern Trends in the Treatment of Syphilis," and (c) "Common Drug Eruptions."

* * *

Recent articles by Michigan physicians in the *Journal of the American Medical Association* include "Torsion of the Testicle" by John K. Ormond, M.D., Detroit, issue of November 19; "The Present Status of Ergonovine" by Ralph G. Smith, M.D., Ann Arbor, issue of December 10; and "Red Blood Cell Increase in Pernicious Anemia" by Raphael Isaacs, M.D., F. H. Bethell, M.D., M. C. Riddle, M.D., and Arnold Friedham, of Ann Arbor.

* * *

A Course in Anatomy will be given during the second semester, February 13 to May 30, 1939, one afternoon and evening each week, on Wednesday, 1:00—10:00 P. M., by Professor Rollo E. McCotter. There will be an informal lecture the first part of the afternoon followed by dissection of the part under discussion. Fee \$25. Graduate or post-graduate credit can be arranged. For further information, address: Department of Postgraduate Medicine, University of Michigan, Ann Arbor, Michigan.

* * *

Dr. Clarence A. Lightner, well known to many of the older members of the medical profession of the state, died on December 7, at his home in Tryon, N. C., at the age of seventy-seven. Mr. Lightner taught medical jurisprudence in the Detroit College of Medicine for many years. He was graduated from the University of Michigan in 1883 and practiced law in Detroit. In 1892, he married Frances B. McGraw, daughter of Dr. Theodore A. McGraw, Senior, one of the best known surgeons of Detroit and Michigan in his day.

* * *

Many times a child is scolded for dullness when he should be treated for undernourishment. The scant fare of a "continental" breakfast provided in hundreds of homes may undernourish and leave the child listless, nervous or stupid at school. A solution to this problem is Pabulum, Mead's Cereal, cooked and dried. It is six times richer than fluid

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milk in calcium, ten times higher than spinach in iron, and abundant in vitamins B₁ and G. Pabulum furnishes protective factors needed by the school-child and is a valuable aid in increasing the weight.

* * *

The Radio Committee of the M.S.M.S., in collaboration with the Joint Committee on Health Education, sponsored the following radio programs during the months of December and January:

December 5, 1938—"What Is a Goitre?" by Eugene Osius, M.D.

December 12, 1938—"Plastic Surgery," by Claire Straith, M.D.

December 19, 1938—"Pneumonia," by Alvin Price, M.D.

December 26, 1938—"Health and High Blood Pressure," by Thomas McKean, M.D.

January 9, 1939—"Research in Medicine," by Clifford Benson, M.D.

* * *

Ten more of your friends, who displayed their products and services at the 1938 Detroit Convention last September. When you have an order, don't forget your friends!

Holland-Rantos, Inc., New York, New York
Horlick's Malted Milk Corporation, Racine, Wisconsin
The G. A. Ingram Company, Detroit, Michigan
Jones Metabolism Equipment Company, Chicago, Illinois
Jones Surgical Supply Company, Cleveland, Ohio
A. Kuhlman & Company, Detroit, Michigan
Lea & Febiger, Philadelphia, Pennsylvania
Lederle Laboratories, Inc., New York, New York
Libby, McNeill & Libby, Chicago, Illinois
Liebel-Flarsheim Company, Cincinnati, Ohio

* * *

The Philadelphia County Medical Society desires to announce formally, the completion of its scientific program for the fourth annual postgraduate institute to be held in the Bellevue-Stratford Hotel, Philadelphia, during the week beginning March 13th, 1939. The subjects to be considered are those embraced by the terms BLOOD DYSCRASIAS and METABOLIC DISORDERS. These will be further subdivided

for convenience in instruction into eighty-six clinical lectures, with open forum discussion for each topic, delivered by as many individual specialists of national distinction.

* * *

S. M. Keenan, a pioneer in the x-ray field in Detroit, died December 8. Mr. Keenan had been connected with the Eloise Hospital for more than forty years, during which time he acquired an extensive collection of x-ray equipment, including tubes of the Crookes type to the very modern apparatus of the present time. Mr. Keenan was born in Brock, Ontario, in 1862, received his B.A. degree from the Detroit College in 1888, also his M.A. in 1896. He was an active member of many organizations, including the Michigan Academy of Science, the American Association for the Advancement of Science, the Detroit Roentgen Ray and Radium Society, and the Roentgen Ray Society.

* * *

Afflicted Child Commitments for month of November, 1938:

Total cases, 1,746, of which 210 were sent to University Hospital and 1,536 were sent to miscellaneous local hospitals. From Wayne County, of the above, 24 went to University Hospital and 348 went to local miscellaneous hospitals, total 372.

Crippled Child: Total cases 305, of which 93 were sent to University Hospital and 212 to miscellaneous hospitals. From Wayne County, included in the above, 5 went to University Hospital and 47 to miscellaneous hospitals, total of 52 cases.

* * *

The American Board of Ophthalmology has announced a change in method of examination of candidates for the Board's certificate. The examination will be in two parts, the written examination

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to be given sixty days prior to the oral examination which will be given at the time and place of the meeting of the American Medical Association and of the American Academy of Ophthalmology and Oto-Laryngology. Candidates must pass the written examination before they may take the oral. The examinations scheduled for 1939 are Written, March 15 and August 5, in various cities throughout the country; and Oral, St. Louis, May 15, and in Chicago, October 6. Write John Green, M.D., 6830 Waterman Ave., St. Louis, Mo., for application forms and further information.

* * *

New county medical society secretaries have been elected for 1939 as follows:

E. S. Parmenter, M.D., Alpena, Secretary of the Alpena County Medical Society

H. R. Mooi, M.D., Union City, Secretary of the Branch County Medical Society

D. R. Smith, M.D., Iron Mountain, Secretary of the Dickinson-Iron County Medical Society

F. L. S. Reynolds, M.D., Ironwood, Secretary of the Gogebic County Medical Society

A. F. Litzemberger, M.D., Boyne City, Secretary of Northern Michigan Medical Society

W. P. Petrie, M.D., Caro, Secretary of the Tuscola County Medical Society

* * *

Laboratory studies and clinical investigations have shown that diphtheria and tetanus toxoids when given at the same time act independently and effectively in the production of their respective antitoxins. The Eli Lilly Laboratories have devised a method of preparing in a single solution the combined alum precipitated toxoids. Two doses of 0.5 c.c. given three to six months apart produce satisfactory immunity within six months after the last injection. If the person immunized should subsequently receive an injury through which tetanus spores might enter the tissues, a stimulating dose of 0.5 c.c. tetanus alum precipitated toxoid should be given. It is advantageous to have reasonable assurance of protection in a large percentage of immunized cases and to be able to avoid serum sensitization from antitoxin administration, which should strongly commend tetanus immunization.

* * *

American Board of Obstetrics and Gynecology.—The general oral, clinical and pathological examinations for all candidates, Part II Examinations (Groups A and B), will be conducted by the entire Board, meeting in St. Louis, Missouri, on May 15 and 16, 1939, immediately prior to the annual meeting of the American Medical Association. Notice of time and place of these examinations will be forwarded to all candidates well in advance of the examination dates.

Candidates for reexamination must request such reexamination by writing the Secretary's Office before the following dates: Part I—January 1, 1939; Part II—April 1, 1939. Candidates who are required to take reexaminations must do so before the expiration of three years from the date of their first examination.

Application for admission to Group A, May 1939, examination must be on file in the Secretary's Office by March 15, 1939.

Application blanks and booklets of information may be obtained from Dr. Paul Titus, Secretary, 1015 Highland Building, Pittsburgh (6), Pennsylvania.

* * *

A cancer center in Detroit was announced last month. Wayne University Medical School and a number of hospitals, notably Receiving, Grace and Woman's Hospitals, will give clinical training in diagnosis and treatment of malignancies. The

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announcement was made by Dr. Ludvig Hektoen of the United States Public Health Service. The work will be open to graduate physicians who are interested in cancer specialization. A three-year training period at these hospitals is announced. Appointments for training will be made by the United States surgeon-general from nominations made by the national cancer advisory council. The following local men are named as instructors: Dr. Edgar H. Norris, professor of pathology at Wayne University, and Dr. Osborn Brines, Assistant Professor at Wayne University Medical School, will teach pathology; Dr. Rollin Stevens and Dr. Clarence I. Owen of Grace Hospital and Dr. Harry Nelson, professor and director of the hospital tumor clinic, and Dr. Frances A. Ford of the Woman's Hospital have been appointed instructors. Dr. Charles G. Johnston, professor of surgery of the Wayne University Medical School, will deal with the subject of general surgical experience at Receiving Hospital.

* * *

Of Interest to the Ophthalmologist

The amount of eye material in any one institution is small. It is hoped by pooling this material from many hospitals to build up a collection of pathological eye material. Properly prepared and diagnosed this will enable Pathologists and Ophthalmologists in this part of the country to advance their knowledge of ocular pathology to an extent which has hitherto not been possible.

It is proposed to keep on permanent file in the ophthalmic research laboratory of Wayne University Medical School, available for study by Ophthalmologists and Pathologists, an adequate number of slides, together with the unused portions of the specimens, and cross-indexed data obtained from the case history and from the report of the specimen. Sample slides and a copy of this laboratory's report in duplicate will be returned to the source of the material. The Pathologist can confirm diagnosis and make his report in the usual way. If the block is desired or if additional slides are wanted, this will ordinarily be possible if requested.

The Pathologists and Ophthalmologists of Hospitals interested in this free service on ophthalmic material may communicate with the Ophthalmic Research Laboratory, Wayne University, College of Medicine, 1512 St. Antoine St., Detroit.

* * *

The Madge Sibley Hoobler Home

The Madge Sibley Hoobler Home, located at 25300 W. McNichols Road in Detroit, stands as a memorial to the late Mrs. Hoobler, wife of Dr. Raymond B. Hoobler, Detroit pediatrician, well known to the profession in Michigan. The Madge Sibley Hoobler Home is a guest house for convalescent girls. It was proposed by the late Mrs. Hoobler, who died over two years ago. The Hoobler Home can accommodate twenty-five guests, who may spend as long as two weeks, without expense, in an atmosphere of quiet refinement and healthy living. The house is organized as a non-profit corporation. On its Women's Board of Directors are Miss Charlotte Waddell, chairman, superintendent of Women's Hospital; Miss Walker; Mrs. H. R. Crowell, of First Presbyterian Church, in charge of religious and social activities; Mrs. W. B. Cooksey, head of the Detroit Girl Scouts and in charge of outdoor activity; Mrs. Josephine Powers; Mrs. Allen B. Crow; and Mrs. Icie Macy Hoobler, Dr. Hoobler's wife.

On the advisory board are William J. Norton, chairman, head of the Michigan Children's Fund; Clarence W. Wilcox, attorney for the fund; Stew-

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SURGERY—General Courses One, Two, Three and Six Months; Two Weeks Intensive Course in Surgical Technique with practice on living tissue; Clinical Courses; Special Courses. Courses start every Monday.

GYNECOLOGY—Two Weeks Course starting February 27, 1939. Clinical and Personal Courses starting every week.

OBSTETRICS—Two Weeks Intensive Course starting March 13, 1939. Informal Course starting every week.

FRACTURES & TRAUMATIC SURGERY—Informal Course every week; Intensive Ten Day Course starting February 13, 1939.

OTOLARYNGOLOGY—Two Weeks Intensive Course starting April 10, 1939. Informal Course starting every week.

OPHTHALMOLOGY—Two Weeks Intensive Course starting April 24, 1939. Informal Course starting every week.

CYSTOSCOPY—Ten Day Practical Course rotary every two weeks.

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art Hamilton, superintendent of Harper Hospital; L. A. Ewald, A. B. Hoskin, and Dr. W. B. Cooksey of the Harper staff. The guest house staff includes Mrs. Norma Selbert, director; Miss Dorothy Waddell, Mrs. Sue Wicher and Dr. Fanny Kenyon.

* * *

Forum on Allergy

Physicians interested in allergy are invited to attend the North Central Forum on Allergy to be held at the Commodore Perry Hotel, Toledo, Sunday, January 15.

The meeting will open with an informal "get-together" Saturday evening, January 14, at the Commodore Perry Hotel. Physicians planning to attend the Forum are urged to arrive in time for this social session which may be the high-light of the meeting.

The program for the two sessions, Sunday, January 15, follows:

Morning Session, 10:00 A. M.

1. Food Allergy

"Diagnostic Measures," by Dr. Samuel M. Feinberg, Chicago; discussants, Dr. M. A. Weitz, Cleveland, and Dr. Sam Levine, Detroit. "Value of Skin Tests in Diagnosis of Food Allergy," by Dr. George Waldbott, Detroit; discussants, Dr. Albert Zoss, Cincinnati, and Dr. I. M. Hinnant, Cleveland.

"Dietary Management of Food Allergy," by Dr. Jonathan Forman, Columbus; discussants, Dr. David M. Cowie, Ann Arbor, and Dr. George L. Lambright, Cleveland.

2. "Drug Hypersensitivity," by Dr. John H. Mitchell, Columbus; discussants, Dr. Barney Credille, Flint, and Dr. Frank Menagh, Detroit. Luncheon—Crystal Room, Commodore Perry Hotel.

Afternoon Session, 2:00 P. M.

"Preparation of Protein Extracts," by Dr. Milton B. Cohen, Cleveland; discussants, Dr. Leon Unger and Dr. Tell Nelson, Chicago.

"Preparation of Plant Oil Extracts for Diagnosis and Treatment," by Dr. L. E. Seyler, Dayton; discussants, Dr. John Sheldon, Ann Arbor, and Dr. Wm. P. Carver, Cleveland.

(Papers limited to ten minutes each; discussants limited to five minutes.)

This meeting was planned to foster acquaintance and exchange of ideas of members of the Cleveland, Chicago, Michigan and Ohio Valley Society of Allergists. However, any physicians, in good professional standing, who are interested in allergy are most welcome.

Further information can be obtained by addressing Dr. Karl D. Figley, 316 Michigan Street, Toledo, Ohio.

* * *

Dr. Vaughan Honored

Dr. Henry F. Vaughan will have completed twenty-five years of service with the Detroit Department of Health on January first.

Dr. Vaughan was born in Ann Arbor, on October 12, 1889, the son of Dr. and Mrs. Victor C. Vaughan. He received his primary and high school education in Ann Arbor, followed by a year at Chateau de Lancy, at Geneva, Switzerland, before entering the University of Michigan, from which he received three degrees, Bachelor of Science in engineering in 1912, M.S. in the same field in 1913 and Doctor of Public Health in 1915.

He was Assistant Sanitary Engineer for the Michigan Department of Health from 1913 to 1914 and in 1914 he came to the Detroit Department of Health as Sanitary Engineer and Assistant Health Officer. When the United States went into the war he became a captain in the sanitary corps of the

(Continued on page 78)

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United States army and was released to become Commissioner of Health in 1918. He has been president of the American Public Health Association, and has served for many years on the Governing Council of that organization. Since 1915, he has been associate professor of public health at Wayne University, and since 1921 special lecturer at the University of Michigan.

He is an associate member of the Wayne County Medical Society and an honorary member of the Detroit District Dental Society. He has contributed many articles on public health and is joint author, with his father and Dr. George T. Palmer, of "Epidemiology in Public Health."

Physicians throughout the country have learned to respect Dr. Vaughan for his appreciation of the part played by the private practitioner of medicine in promoting public health. His coöperative plan with the Wayne County Medical Society, which has been entitled "Medical Participation in Public Health," has been watched and adopted in an increasing number of localities.

On Thursday evening, January twelfth, at 7:00 o'clock, the staff of the Detroit Department of Health will honor Dr. Vaughan at a subscription dinner, to which physicians in Detroit are invited. Tickets may be obtained from the executive offices of the Wayne County Medical Society or the office of the secretary of the Department of Health.

* * *

CREDIT IS DUE

The following members of the Michigan State Medical Society were present at the postgraduate assemblies of the Michigan State Medical Society Annual Meeting, Detroit, September 19, 20, 21, 22, 1938.

Agnelly, Ed. J.—Detroit
Allen, R. C.—St. Joseph
Amberg, Emil—Detroit
Andrew, F. T.—Kalamazoo
Andries, R. C.—Detroit
Appel, Philip R.—Detroit
Arnold, A. L., Jr.—Owosso

Badgley, C. E.—Ann Arbor
Bailey, Louis J.—Detroit
Baker, H. B.—Detroit
Bakst, Joseph A.—Detroit
Balser, Chas. W.—Detroit
Barnett, S. E.—Detroit
Barnes, Donald J.—Detroit
Barrett, Joseph E.—Lansing
Barrett, W. D.—Detroit
Barstow, W. E.—St. Louis
Barton, J. R.—Detroit
Bates, Gaylord S.—Detroit
Beck, Otto S.—Birmingham
Becker, Myron G.—Edmore
Biegler, Sydney K.—Detroit
Bell, William M.—Detroit
Benning, C. H.—Royal Oak
Berman, Harry S.—Detroit
Bernstein, A. E.—Detroit
Best, H. M.—Lapeer
Bicknell, N. J.—Detroit
Biddle, Andrew P.—Detroit
Blaess, Marvin J.—Detroit
Blain, A. W.—Detroit
Blanchard, F. N.—Detroit
Boyd, D. R.—Muskegon
Bradley, J. B.—Eaton

Rapids
Braley, W. N.—Detroit
Brasie, Donald R.—Flint
Brisbois, H. J.—Plymouth
Brook, J. D.—Grand Rapids
Brown, Henry S.—Detroit
Brown, I. W.—Kalamazoo
Bruehl, Richard A.—Detroit
Brunk, A. S.—Detroit
Brunk, C. F.—Detroit
Brunson, E. T.—Ganges
Budler, Samuel A.—Pontiac
Budson, Daniel—Detroit
Buesser, Fred G.—Detroit
Burch, L. J.—Mt. Pleasant
Burley, J. H.—Port Huron
Byington, G. M.—Detroit

Caldwell, J. Ewart—Detroit
Cariucci, Peter F.—Detroit

Carstens, Henry R.—Detroit
Caster, E. W.—Mt. Clemens
Catherwood, A. E.—Detroit
Chase, A. W.—Adrian
Cheney, G. C.—Detroit
Christian, L. G.—Lansing
Christopoulos, D. G.—Detroit

Clark, Harold E.—Detroit
Clark, Harry L.—Detroit
Clarke, George L.—Detroit
Clinton, Wm. R.—Detroit
Cole, Fred H.—Detroit
Conrad, G. A.—Sault Ste. Marie
Cook, Henry—Flint
Cooksey, W. B.—Detroit
Cooper, James B.—Detroit
Corbus, Burton R.—Grand Rapids
Cree, Walter J.—Detroit
Cruikshank, Alex.—Detroit
Cummings, H. H.—Ann Arbor
Curhan, Joseph H.—Detroit

D'Alcorn, E.—Muskegon
Danforth, M. E.—Detroit
Davis, C. R.—Detroit
Day, Luther W.—Jonesville
Defnet, Wm. A.—Detroit
DeGurse, T. E.—Marine City

Dempster, J. H.—Detroit
Denman, Dean C.—Monroe
DeVries, C. F.—Lansing
Dibble, Harry F.—Detroit
Donald, Douglas—Detroit
Doyle, Fred M.—Kalamazoo
Doyle, George H.—Detroit
Dubernell, M. S.—Detroit
Dunn, Cornelius—Detroit
Dutchess, Chas. E.—Detroit

Ellet, Wm. C.—Benton Harbor

Fenech, Harold B.—Detroit
Fenton, Edw. H.—Detroit
Finch, Russell L.—Lansing
Fisher, G. F.—Hastings
Fitzgerald, E. W.—Detroit
Folsome, C. E.—Ann Arbor
Forbes, Edwin B.—Detroit
Forrester, A. V.—Detroit

Foster, L. F.—Bay City
Foster, Owen C.—Detroit
Foss, Edwin O.—Muskegon
Fralick, F. B.—Ann Arbor
Frazer, Mary M.—Detroit
Freese, John A.—Detroit
Friedlaender, B.—Detroit
Fyvie, J. H.—Manistique

Garner, Howard B.—Detroit
Geib, L. O.—Detroit
Gelber, S.—Detroit
Gellert, I. S.—Detroit
Gonne, Wm. S.—Detroit
Gordon, W. H.—Detroit
Gould, S. E.—Detroit
Grant, L. E.—Detroit
Greene, I. W.—Owosso
Grossman, S. C.—Detroit
Gruber, T. K.—Eloise

Hackett, Walter L.—Detroit
Hafford, A. L.—Albion
Hafford, George C.—Albion
Hall, James A. J.—Detroit
Hansen, H. C.—Battle Creek
Harkness, R. B.—Hastings
Harm, W. B.—Detroit
Harrison, Henry—Detroit
Hart, C. D.—Newberry
Hart, Dean W.—St. Johns
Hartman, F. V.—Detroit
Harvie, L. C.—Saginaw
Hasley, C. K.—Detroit
Hasner, R. B.—Royal Oak
Haughey, W.—Battle Creek
Heavenrich, T. F.—Port Huron

Henderson, L. T.—Detroit
Hewitt, Leland V.—Detroit
Hirschman, L. J.—Detroit
Hodge, James B.—Detroit
Hoffman, T. E.—Vassar
Hoffmann, M. H.—Eloise
Holly, L. E.—Muskegon
Holmes, R. H.—Muskegon
Hookey, J. A.—Detroit
Howlett, R. R.—Caro
Hubbell, R. J.—Kalamazoo
Huntington, H. G.—Howell

Imthun, E.—Grand Ledge
Insley, Stanley W.—Detroit
Isaacs, J. C.—Detroit
Isaacson, Arthur—Detroit
Jackson, C. C.—Imlay City
Jamieson, D. A.—Arcadia
Jamieson, R. C.—Detroit
Jonikaitis, J.—Detroit
Johnson, L. J.—Ann Arbor
Johnston, E. V.—Detroit
Johnstone, Ben I.—Detroit

Kay, Harry H.—Detroit
Keane, William E.—Detroit
Kelsey, Lee—Lakeview
Kennedy, Wm. Y.—Detroit
Keyport, C. R.—Grayling
Kilroy, J. Frank—Detroit
Kirschbaum, Harry—Detroit
Kirtin, J. R. W.—Calumet
Klein, William—Detroit
Kleinman, S.—Detroit
Kliger, David—Detroit
Kniskern, Paul W.—Grand Rapids
Krebs, Wm. T.—Detroit

Laird, R. Lee—Detroit
Lampman, H. H.—Detroit
Lang, W. W.—Kalamazoo
Lawrence, Wm. C.—Detroit
Ledwidge, P. L.—Detroit
Lemen, C. E.—Traverse City
LeMire, W. A.—Escanaba
Lemmon, C. E.—Detroit
Lewis, Lee A.—Manistee
Libby, E. M. D.—Iron River
Lipkin, Ezra—Detroit
Lippold, Paul H.—Detroit
Livingston, G. M.—Detroit
Loupee, S. L.—Dowagiac
Luce, Henry A.—Detroit

Marshall, W. H.—Flint
McAlpine, A. E.—Detroit
McCall, J. H.—Lake City
McClellan, G. L.—Detroit
McDonald, Allan—Detroit
McIntyre, J. Earl—Lansing
McKean, R. M.—Detroit
Manthei, W. A.—Lake Linden

Mason, Elta—Flint
Menzies, Clifford G.—Iron Mountain
Mercer, C. M.—Battle Creek
Merritt, Edwin D.—Detroit
Mertaugh, W. F.—Sault Ste. Marie
Miller, Harold A.—Lansing
Miller, J. D.—Grand Rapids
Mishelevich, Sophie—Detroit
Moisides, V. P.—Detroit
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Morris, Harold L.—Detroit
Murphy, Frank J.—Detroit

Neumann, A. J.—Detroit
Novy, R. L.—Detroit

Oakes, Ellery A.—Manistee
O'Brien, D. J.—Lapeer
O'Donnell, F. J.—Alpena
Olson, Richard E.—Pontiac
O'Meara, James J.—Jackson
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Osterlin, Max F.—Traverse City

Parmelee, G. H.—Detroit
Paull, Chester A.—Detroit
Pearse, Harry A.—Detroit
Peirce, Howard W.—Detroit
Penberthy, G. C.—Detroit
Perkins, Roy C.—Bay City
Pickard, O. W.—Detroit
Pierce, Frank L.—Detroit
Pinkus, Hermann—Detroit
Pino, Ralph H.—Detroit
Place, Edwin H.—Midland
Plaggemeyer, H. W.—Detroit
Potts, Enos A.—Detroit
Prendergast, J. J.—Detroit
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Rupp, Jacob Roth—Detroit
Russell, T. P.—Centerline

Sadi, Lufti M.—Detroit
Sage, E. O.—Detroit
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Salot, R. F.—Mt. Clemens
Sawyer, Harold F.—Detroit
Scher, J. N.—Mt. Clemens
Schreiber, Frederic—Detroit
Scafford, R. E.—Bay City
Scott, Dwight F.—Sault Ste. Marie

Scott, Robt. D.—Flint
Segar, Laurence F.—Detroit
Seibert, A. H.—Detroit
Selmon, B. L.—Battle Creek
Sethney, H. T.—Menominee
Shafarman, E. M.—Detroit
Shaffer, Loren W.—Detroit
Shawan, H. K.—Detroit
Sheldon, Suel A.—Saginaw
Sherman, B. B.—Detroit
Sherman, Geo. A.—Pontiac
Sherwood, D. L.—Detroit
Shulak, Irving B.—Detroit
Simpson, C. E.—Detroit
Skully, G. A.—Detroit
Sladek, E. F.—Traverse City

Slevin, John G.—Detroit
Small, Henry—Detroit
Smeck, A. R.—Detroit
Smith, D. R.—Iron Mountain

Smith, W. Joe—Cadillac
Snapp, Carl F.—Grand Rapids

Souda, Andrew—Wyandotte
Southwick, G. Howard—Grand Rapids
Southwick, S. W.—Detroit
Spalding, Edw. D.—Detroit
Spears, M. L.—Pontiac
Spinks, R. E.—Newberry
Springer, R. A.—Centerville
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Stern, Louis D.—Detroit

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Straith, Claire L.—Detroit
Strong, W. F.—Ontonagon
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Sugar, David I.—Detroit
Sutton, P. E.—Royal Oak

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Thompson, Alvin—Flint
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Vale, C. Fremont—Detroit
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VanRhee, Geo. H.—Detroit
Vaughan, Henry F.—Detroit
Vonder Heide, E. C.—Detroit

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Waldie, Geo. M.—Hancock
Walker, Roger V.—Detroit
Ward, William T.—Detroit
Weber, Karl W.—Detroit
Webster, J. C.—Marlette
Weller, C. N.—Detroit
Wenger, A. V.—Grand Rapids

Wessinger, John A.—Ann Arbor

Wiley, Harold W.—Lansing
Willison, Clayton—Sault Ste. Marie

Wishropp, Edw. A.—Detroit
Wittenberg, Samson S.—Detroit

Witwer, E. R.—Detroit
Woodworth, W. P.—Detroit

Yeo, G. H.—Big Rapids
Yates, H. W.—Detroit
Yeomans, T. G.—St. Joseph

Zindler, George A.—Detroit

The above list represents the registration of Monday, September 19, 1938. The registration of Tuesday, Wednesday, and Thursday will be published in succeeding issues of THE JOURNAL.

Abstracts in the Field of Physical Therapy

Blackman, W. W., and Richardson, J. L.: Diathermy in Coronary Thrombosis. Arch. Physical Ther., 21:412 (July), 1938.

Short wave diathermy is the most efficient and reliable agent available for improving the blood supply to the myocardium in coronary thrombosis. Clinical and electrocardiographic evidence shows that short wave diathermy through the region of the heart allays arterial spasm, induces coronary dilatation and develops new blood pathways.

Hansel, F. K.: Status of Ionization in Nasal Allergy. Arch. Phys. Ther., 21:489, (August) 1938.

According to leading rhinologists, ionization of the nasal mucosa is safe and satisfactory in the treatment of hay fever and nasal allergy. According to observation of leading allergists, ionization does not give results comparable to those obtained by allergic methods of treatment. A few rhinologists have reported results from escharotics equally as satisfactory as those obtained by ionization. It is generally concluded that ionization in nasal allergy should be confined to those cases in which allergic methods of treatment have failed to give satisfactory relief of symptoms. The selection of cases for this type of treatment, therefore, should be made by the close coöperation of the allergist and the rhinologist, or by the rhinologist adequately familiar with the practice of allergy.

Osborne, S. L., Blatt, M. L., and Neymann, C. A.: Electropyræxia in Rheumatic Carditis, Chorea and other Childhood Diseases. Physio-Therapy Rev. 18:68, (March-April) 1938.

The authors treated twenty-five patients suffering from chorea minor, seven of whom had rheumatic carditis. The authors feel that fever is not contraindicated where a heart lesion is present because all the patients were poorly nourished and poor risks and had nothing happen to them from the fever treatments. Treatment is carried out in 8 hour sessions at a temperature about 104 F. Rheumatic carditis. The authors feel that fever is benefited by artificial fever therapy. The choreiform movements of Sydenham's chorea cease in 88 per cent of the cases treated. The movements stop after an average of four sessions, which justifies the belief that the disease is aborted and will not recur.

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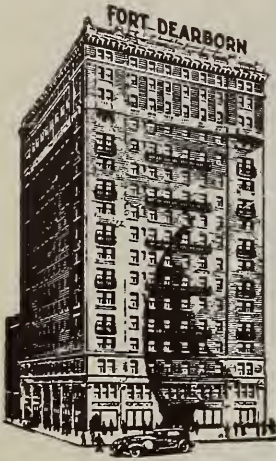
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Acknowledgment of all books received will be made in this column and this will be deemed by us a full compensation to those sending them. A selection will be made for review, as expedient.

SPINAL ANESTHESIA. By Louis H. Maxson, A.B., M.D. Practicing specialist in anesthetics, formerly Chief Anesthetist, Harborview Hospital, Seattle, Washington, with a foreword by W. Wayne Babcock, M.D., LL.D., F.A.C.S., Professor of Surgery, Temple University School of Medicine, with illustrations. Philadelphia and New York: J. B. Lippincott Company, 1938.

"The dangers of spinal anesthesia lie with the user, more than with the drug," writes Dr. Wayne Babcock, as a preface to a plea for skill on the part of the spinal anesthetist. This work of over 400 pages discusses every phase of the subject of spinal anesthesia, including anatomical considerations, physical factors, drugs, technical considerations, special technic and technical difficulties, dangers, complications, advantages and disadvantages.

DISEASES OF THE NOSE, THROAT AND EAR. By W. Wallace Morrison, M.D. Clinical Professor and Chief of Clinic, Department of Otolaryngology, New York Polyclinic Medical School and Hospital, illustrated. Philadelphia and London: W. B. Saunders Company, 1938.

This work is based upon fifteen years of teaching the subject of otolaryngology to postgraduate students. This fact should recommend it to the general practitioner as well as the specialist, for, while otolaryngology is a specialty, there are certain phases, particularly the acute stages, which the general practitioner should understand. The work is well illustrated by pen drawings and zinc etchings, evidently made to illustrate the particular subject under discussion. The usual method is followed, namely, of prefacing the subject with full description of anatomy and physiology. The work can be heartily recommended.

MARIHUANA, AMERICA'S NEW DRUG PROBLEM. By Robert R. Walton, Professor of Pharmacology, School of Medicine, University of Mississippi, with a foreword by E. M. K. Geiling, Professor of Pharmacology, University of Chicago, and a chapter by Frank R. Gomila, Commissioner of Public Safety, New Orleans, and M. C. Gomila Lambou, Assistant City Chemist. Philadelphia: J. B. Lippincott Company, 1938. Price \$3.00.

This little work of 223 pages will doubtless supply all the information on the subject that anyone may desire. The authors are exceedingly well qualified by position and training to write authoritatively on the subject.

ENDOCRINE THERAPY IN GENERAL PRACTICE. By Elmer L. Sevringhaus, M.D., F.A.C.P. Professor of Medicine, University of Wisconsin, Madison, Wisconsin; Editor, Department of Endocrinology, The Year Book of Neurology, Psychiatry & Endocrinology, Chicago: The Year Book Publishers, Inc., 1938.

This is a much abridged treatise on the use of some of the known, effective secretions of the endocrine glands that are available. Since this is a work designed for the general practitioner, much of the knowledge concerning these glands has been reserved for more complete works on this subject. Even those general practitioners who desire to do intelligent work in this field will find it to their advantage to refer to the works which more completely cover the subject.

A TEXTBOOK OF BACTERIOLOGY. Thurman B. Rice, A.M., M.D., Professor of Bacteriology and Public Health at the Indiana University School of Medicine. Second Edition, Revised. 563 pages with 121 illustrations. Philadelphia and London: W. B. Saunders Company, 1938. Cloth, \$5.00 net.

As in previous editions, the author has attempted to make this work a text for students and practi-

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tioners. He has designed it as an aid for the interpretation of disease, rather than a book for the identification of bacteria. He has held the descriptions of the morphology and the cultural characteristics of bacteria to the essentials, leaving detailed information for more voluminous works. Such newer subjects as the typing of pneumococci, the use of sulphanilamide, and of tetanus alum-toxoid are included in this work.

The book appeals to the practitioner as a valuable addition to his reference library.

THE 1938 YEARBOOK OF GENERAL MEDICINE.

Edited by George F. Dick, M.D., J. Burns Amberson, Jr., M.D., George R. Minot, M.D., S.D., F.R.C.P. (Hon.) Edin., William B. Castle, M.D., A.M., M.D. (Hon.) Utrecht, William D. Stroud, M.D., George B. Eusterman, M.D. Chicago: The Year Book Publishers, Inc., 1938.

The Year Book Series in the various departments of medicine and surgery have won for themselves a unique place in the estimation of the medical profession. The science of medicine in all its branches progresses so rapidly that a sifting of values each year is a necessity. When this is done by outstanding authorities in the various subjects, the product is of inestimable worth. The above mentioned names as authors should commend the 1938 Yearbook to every internist and general practitioner. The work comprises 840 pages of reading matter with 178 illustrations in the way of halftones and charts. This work cannot be too highly recommended as a presentation of the latest achievements in medicine.

DISEASES OF THE SKIN FOR PRACTITIONERS AND STUDENTS:

By George Clinton Andrews, A.B., M.D., Associate Professor of Dermatology, College of Physicians and Surgeons, Columbia University; Chief of Clinic, Department of Dermatology, Vanderbilt Clinic;

Fellow of the American Medical Association, of the American College of Physicians, and of the New York Academy of Medicine. Second Edition, entirely reset. 899 pages with 938 illustrations. Philadelphia and London: W. B. Saunders Company, 1938. Cloth, \$10.00 net.

The second edition of this work contains seventy-five new diseases of the skin. The author has added chapters on dermatoses due to filterable viruses, vitamin deficiencies and cutaneous infiltration with products of metabolism. The author has gone into the subject of therapy very thoroughly and has added several hundred items such as prescriptions, sensitization tests and discussions of allergy. The work opens with chapters on dermatological anatomy and general pathology. The various skin diseases are grouped. The writer has given detailed instructions in regard to the indications and technic of radium and x-ray therapy. The work is well illustrated and of convenient size. Such works are usually written with the general practitioner in mind and as textbooks for medical students. This work is ideal for both classes of reader. The dermatologist will also peruse it with interest.

INTERNAL MEDICINE: ITS THEORY AND PRACTICE

in Contributions by American Authors, Edited by John H. Musser, B.S., M.D., F.A.C.P., Professor of Medicine in the Tulane University School of Medicine, New Orleans. Third edition, thoroughly revised. Illustrated. Pages 1,426. Philadelphia: Lea & Febiger, 1938.

The second edition of this work appeared four years ago. The third edition has been thoroughly revised. This is not an easy task when it is considered that it is a work of composite authorship (twenty-seven contributors). The very fact of multiple authorship, however, will assure the reader of thoroughness in the revision since each contributor has been selected for the special emphasis he places on the subject dealt with. The former



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editions are too well known as well as the editor to call for extended introduction. The book will be found not only a convenient single volume practice (for it is printed in clear type on light paper) but an authoritative work up to the minute on internal medicine.

CANCER, ITS DIAGNOSIS AND TREATMENT. By Max Cutler, M.D., Associate in Surgery, Northwestern University Medical School, and Franz Buschke, M.D., Assistant Roentgenologist, Chicago Tumor Institute, assisted by Simeon T. Cantril, M.D., Director, Tumor Institute Swedish Hospital, Seattle. Pages 753, illustrated. Philadelphia and London: W. B. Saunders Company, 1938.

One expressed object of this work is to clarify opinion arising out of the controversial literature on the subject of neoplastic disease. Recognized authorities and leading clinics hold diametrically opposite views upon the management of some of the most common forms of the disease (cancer), write the authors. The whole field of malignancy is still beset with difficulties, not only in diagnosis but also treatment, particularly when the x-rays and radium are employed with our still uncertain knowledge of their action. The work discusses regional manifestations of cancer such as skin, lip, tongue, pharynx, including every organ in the body as well as nearly fifty pages to bone tumors. Thirty-four pages are devoted to radiation therapy, that is radiation by x-rays and radium. In the matter of x-ray treatment, the author not only discusses indications but draws attention to late manifestations requiring caution, particularly in regard to possible injuries. The work is a full, almost exhaustive, treatise of malignancy which can be recommended unhesitatingly to the entire medical profession.

A BIOLOGICAL APPROACH TO THE PROBLEM OF ABNORMAL BEHAVIOR. By Milton Harrington, M.D. 455 pages. The Science Press Printing Company, 1938.

In 1934, Doctor Harrington published a volume entitled "Wish-Hunting in the Unconscious" in which he set forth his criticisms of Freudian Psychology. His purpose in the present publication is to present the psychology which he would offer in the place of psycho-analysis. Instead of devoting himself exclusively to this objective he continues throughout the book to attack the psychology of Sigmund Freud.

The book is divided into three parts. After fifty-two pages of First Principles, there follow two hundred and three pages about the psychology of the individual and the remainder of the volume concerns psychopathology. The author advances no new psychological theories in this publication and much of the material is a repetition of that which has been presented in previous text books on this subject. Doctor Harrington's nuclear theme is contained in the following statement: "We believe that all forms of

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behavior are produced by the action of an anatomical mechanism, and that abnormality of behavior occurs because of the inadequacy of this mechanism, by reason of which it sometimes fails to respond in a satisfactory way to the demands made upon it." To attribute all our thoughts, feelings and actions "to the workings of the anatomical mechanism which functions in accordance with definite and fixed laws," seems, in the opinion of this reviewer, to deny the existence of individuality, to neglect the effects of experience, and to ignore the whole concept of human personality. The author's psychology is so mechanistic that he repeatedly compares the behavior of people to the workings of mechanical devices and his arguments are naturally far from convincing. Such statements as the following are contradictory to the facts of everyday experience: "When afraid, for example, one forces himself to assume a bold and aggressive attitude and the fear disappears." Similarly, the author states "when angry, one inhibits the impulse to clench his fists, to scowl, to grit his teeth, and to speak angrily. Instead he compels his body to relax, he smiles, speaks in gentle tones and extends his hand in friendly gesture. In behaving in this way, one frees himself from the emotion of anger, because he frees himself from the postural stimulus by which the emotion of anger is maintained." Everyone knows that we often attempt to hide our feelings from others but no one believes that such concealment causes elimination of the emotions we experience. To agree with the author one would have to believe that human beings possess truly magical powers. This book is not a contribution to a better understanding of abnormal behavior. It is but another attempt to argue with Freud.

—LEO H. BARTEMEIER.

YEARBOOK OF PHYSICAL THERAPY. Richard Kovacs. Chicago: Year Book Publishers, 1938.

This volume of the Year Book Publishers is an outstanding contribution of the fast increasing literature in the field of physical therapy. Richard Kovacs has been one of the leaders and prolific writers in physical therapy, and is well equipped by experience to attempt a review of all the material which has been published in this field during the past year. The first section of the book deals with physical therapy methods, and with general discussions of the physics, dosage and clinical applications. Of particular interest in this section is the discussion of electrophoresis, and its application in the treatment of arthritis. The different phases of physical therapy—electrotherapy, artificial fever therapy, light therapy, balneotherapy and climato-therapy, massage and exercise, physical education and institutional work—are discussed from the current literature of the past year. The second part of the book deals with the practical applications of the various physical modalities. Adequate space is devoted to the application of physical therapeutic measures in cardiovascular conditions, peripheral vascular disease, pulmonary and abdominal conditions, arthritis and rheumatic conditions, traumatic and orthopedic conditions, paralyzes, neurologic and mental conditions, and general discussions on pediatric, gynecologic, genito-urinary, venereal (gonorrhea and syphilis), proctologic, dermatologic, ophthalmologic and nose and throat conditions. This book is of value to both the general practitioner and specialist in that it reviews all recent literature in the treatment of disease by physical modalities. The author is to be highly commended for his efforts in compiling and so well arranging the literature in book form. Reading is easy, and information is practical. All in all this book constitutes a real addition to good reading matter in the field of physical therapy.

NEW AND NONOFFICIAL REMEDIES, 1938. Containing descriptions of the Articles Which Stand Accepted by the Council on Pharmacy and Chemistry of the American Medical Association on January 1, 1938. Cloth. Price, \$1.50. pp. 592, LXVI. Chicago: American Medical Association, 1938.

New substances described in this volume are Sulfanilamide and Protamine Zinc Insulin, with the accepted brands. The proved value of these new additions to the physician's armamentarium bids fair to make the past year a milestone in therapeutic progress. The Council is to be congratulated on the promptness with which it evaluated these drugs and established standards for their adequate control. From the first the Council warned against using Sulfanilamide in untried combinations. The sad tragedy of the deaths from the rashly introduced Elixir of Sulfanilamide-Massengill starkly emphasizes the value of such a body as the Council to the medical profession and the pharmaceutical manufacturers as well as to the public. Of course this potential value cannot become effective as long as those concerned refuse to follow the Council in the use of new remedies.

Other noteworthy new drugs which appear in New and Nonofficial Remedies, 1938, are Avertin with Amylene Hydrate, Vinethene, Pontocaine Hydrochloride, basal, general and local anesthetics respectively; Novatropine and Syntropan, synthetic mydriatics.

Physicians who wish to know why a given proprietary is not described in New and Nonofficial Remedies will find the "Bibliographical Index to Proprietary and Unofficial Articles Not Included in N.N.R." of much value. In this section (in the back of the book) are given references to published articles dealing with preparations that have not been accepted. These include references to the Reports of the Council, to Reports of the A.M.A. Chemical Laboratory and to articles that have appeared in *The Journal*.

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Among Our Contributors

Dr. Emil Amberg was born in Santa Fe, New Mexico. He graduated from the University of Heidelberg, Germany, and was granted the license to practice medicine in Germany in 1894. His thesis for the doctor's title was written under the guidance of Professor Kraepelin. It led to the discovery of the "Warming-Up-Effect." He was interne in the Ear Department of the Massachusetts Charitable Eye and Ear Infirmary, Boston, Massachusetts, from January, 1896, to April, 1897. He is connected with several institutions in Detroit in his capacity as otologist.

* * *

Dr. James B. Blashill was graduated from the University of Michigan in 1927 with an A.B. degree and in 1930 with the M.D. He was associated with Dr. R. L. Fisher as resident in medicine and with Dr. Alexander Blain as resident in surgery at the Alexander Blain Hospital. Dr. Blashill has been in private practice in Detroit since 1933.

* * *

Dr. Willis L. Dixon is a graduate of Loyola University, 1916. He holds the position of consulting pediatrician, St. Mary's Hospital, Grand Rapids, Michigan, at the present time.

* * *

Dr. Charles H. Frantz is a graduate of the University of Michigan, 1932. He served his internship at Blodgett Memorial Hospital, 1932, was orthopedic resident, Blodgett, 1933; pathology resident, University of Michigan Hospital, 1934, and orthopedic resident, Blodgett Hospital, 1935. He is associated with Dr. John T. Hodgen in practice.

* * *

Dr. E. E. Hammonds was graduated from Washington University in 1934. He is now in private practice limited to internal medicine, in Birmingham, Michigan.

* * *

Dr. Edwin W. Hirsch of Chicago is a graduate of the University of Chicago, 1914, and of the Rush Medical College, 1916. He is attending Urologist at the Englewood Hospital, and Associate Urologist at the Mt. Sinai Hospital, Chicago. Dr. Hirsch limits his practice to Urology.

* * *

Dr. Sumner L. Koch of Chicago is a graduate of the Northwestern University Medical School, class of 1914. He is Associate Professor of Sur-

gery, Northwestern University Medical School and attending surgeon of the Passavant Memorial and Cook County Hospitals.

* * *

Dr. Earl G. Krieg of Detroit was graduated from Wayne University Medical School in 1925. He is instructor at the Wayne University Medical School, Junior Associate Surgeon in Gynecology at Receiving Hospital, Junior Attending Surgeon at Woman's Hospital, and Associate Attending Surgeon at the Alexander Blaine Hospital.

* * *

Dr. Louis D. Stern of Detroit received his A.B. degree from the University of Michigan in 1912, and M.D. in 1916. He had a Fellowship in Hematology at the Harvard Medical School, 1920-21. From 1921 to 1926 he was Instructor in Internal Medicine at the University of Michigan Medical School. Dr. Stern is now in private practice, limiting his work to internal medicine, and is attending physician at the Deaconess Hospital and North End Clinic.

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FRACTURES INVOLVING THE ELBOW*

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The humerus, ulna and radius, singly or in combination, are involved in fractures into and about the elbow joint. This diarthrodial joint is classified as a ginglymus which permits hinge-like motions within a certain arc, the exact range of which must be known by the physician dealing with fractures of the area. This arc of motion extends from an angle of about 30° made by the forearm with the arm (humerus) when the forearm is fully flexed, to 180° , or a straight angle, when the forearm is fully extended, giving a total range of motion of approximately 150° . In some adolescents, particularly in girls, the degree of extension may naturally be greater than 180° when the joints are allowed to re-

lax from stretched or immature ligaments. In addition to this range of motion as a hinge, we find that the forearm is attached to the arm at an angle of about 10° away from a straight line to permit the forearm to point outward from the body when fully extended and yet to bring its long axis directly over the long axis of the humerus when fully flexed. This deviation at the elbow is called the carrying angle, made possible by an angle of attachment of the forearm bones to the humerus and a slanting off of the lower articular surface of the humerus itself—each equalling 5° , totalling 10° , and permitting the exact folding over of forearm onto an arm axis in flexion.

This one point in the structure of the elbow is most important in determining displacement after some of the fractures around the joint, in guiding the reduction

and immobilization of the fracture and in the prognosis after healing of the injury.

Of equal importance with the gross architecture of the joint is the strong capsular ligament arranged to bind olecranon and coronoid to humerus reinforced by a tough annular ligament about the head of the radius holding it to ulna and external condyle of the humerus, and the supporting collateral ligaments extending on either side from humerus to ulna and radius. These firmly bind the joint and yet on account of the limited range of its hinge motion we find that the bones themselves assist in this restriction. The olecranon projecting behind and within the limitation of these ligaments makes excursion up into the olecranon fossa of the humerus in full extension of the forearm and by impinging in this fossa limits extension. A similar action exists in flexion when the coronoid process of the ulna occupies the depths of

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the coronoid fossa of the humerus in the front of the joint limiting forearm flexion with the help of the interference of the muscle masses in the front and the strong pull of the triceps tendon in the back of the joint. Pronation and supination of the forearm, obtained by rotation of the head and shaft of the radius about the ulna, are independent of forearm flexion and extension and may be limited by the simple process of fixation of radius to ulna, either by adhesions, change in shape of the round head so that it cannot run wheel-like on the articulating surface of the ulna or by angular displacement of the neck of the radius or upper end of the ulna.

To recapitulate, we have then a joint constantly useful to all arm motions, hinge-like in action with accessory rotation function, closely packed with its three component bones bound snugly by strong ligamentous envelopment. Fracture of any part of these three bones even of minor degree, or involving cartilaginous surface, or in infancy and youth disrupting the growing epiphyses (for discussion of which space is lacking) requires careful diagnosis, skillful attention and a guarded prognosis.

Based on anatomical structure the elbow bones yield by fracture as a result of transmission of force up the forearm in falls on the hand. This may lead to supracondylar, or condylar fractures of the humerus or fractures of the head and neck of the radius. Force transmitted through the flexed forearm or on the elbow area directly may result in splitting fractures of the lower end of the humerus, the coronoid process of the ulna, the olecranon or isolated condylar fractures. The added indirect action of muscle pull may cause some fractures of the olecranon or dislocations of the joint as a whole. These injuries are found at all ages, from the infant just starting to walk, to old age. Let us discuss a few of them.

Supracondylar fracture of the humerus may be considered the typical elbow fracture of infancy and adolescence and may pass through the epiphyseal plane wholly or in part. Rarely there is no displacement of fragments, but usually the distal fragment (elbow articular portion) with its closely attached forearm bones, is displaced backward and inward, leading to two planes of displacement as viewed from before backward, or laterally. This separation of bone

with stretching or tearing of surrounding soft parts may catch the near-lying median or ulnar nerves causing primary disturbance of their function, even severing them, or later interfering with their action by inclusion in callus or scar tissue. An apparent change in the carrying angle from this loosening of bony support just proximal to the elbow joint must result. The elbow joint relationships proper are not changed because supracondylar fracture is practically always extra articular, but the loss of support of the humerus just above the joint lets the heavy forearm hang or sag, thus modifying this important angle governing relationship between forearm and arm. If the carrying angle is not restored and the posteriorly displaced fragment of the humerus is not brought forward into normal relationship with the shaft, there will result loss of full range of motion in the elbow region with functional loss of use of the arm.

For reduction, with help of counter traction on the arm by some one assisting, the forearm is first slightly hyperextended, avoiding further injury of soft parts about the elbow and thinking always of the tension on the blood vessels and nerves, then pulled out in its long axis by traction on forearm and hand, followed by flexion of the forearm during maintenance of this traction. This third part of the act of reduction is most important as the forearm's long axis must be carried steadily to coincide with the long axis of the arm and brought up to 40° or 35° of flexion with the arm, the palm of the hand directed toward the shoulder. With the help of the normal anatomical support about the elbow, this should restore the carrying angle and give reduced coaptation of fracture surfaces.

This position must be sustained by a well-applied posterior or posterior and anterior moulded plaster of Paris splint, extending to base of the fingers for a long enough time, depending on the age of the patient, to ensure bony healing. If the support is removed too soon in any yielding to the patient's desire to get out of splint or to any fear of stiff joint resulting from lack of motion, two results may follow. In the first the weight of the forearm and hand may bend the soft callus and thus reproduce some of the posterior and angular

displacement changing the carrying angle unfavorably, interfering with the final useful range of motion.

A similar result may follow inadequate immobilization when the plaster dressing does not extend high enough on the arm segment, thus permitting freedom of rotation of the proximal fragment of the humerus and a slipping off at the fracture site. To avoid this disaster the plaster splint may be run up over the scapular region locking arm to torso, or in extreme cases in very steep and oblique fracture the whole arm should be encased in plaster, palm toward shoulder and the dressing incorporated in a plaster of Paris torso cast, embracing the body, resting on the padded iliac crests. This ensures no slipping of a properly reduced fracture.

A second untoward result may follow too early attempts at motion, either active or passive. These may set up additional secondary and untoward new bone formation to interfere with the joint motion. Maintain the immobilization, therefore, long enough to avoid these dangers, to permit the periarticular extravasation to absorb and the callus to harden, then use only active motion short of pain. To this control of the joint the physician adds unlimited patience and encouragement and the final joint range of function will be maximal. Each exercise of active motion must carry the forearm back to full flexion which position after removal of the splint at the end of the third week may be held, especially at night, by temporary reapplication, until all fear of losing full flexion is passed. During the day the arm may be carried in a sling for safety and convenience. The functional results after supracondylar fracture are seldom perfect, but the physician must aim to restore motion and a good carrying angle in an arc of usefulness, which means ability to flex the forearm so that the hand may reach the face for the purpose of eating, attending to hair or shaving, and ability to button clothes. When the fracture is not reduced, these acts will be lost in whole or in part.

Forceful repeated passive motions are seldom profitable in attempts to restore elbow joint motion and function. They usually lead to additional blood extravasation about the joint, formation of more new bone and constricting fibrous tissue with

resulting reduction of the range of joint motion. A small percentage of these fractures, seen late and unreduced, may be coaxed back into near reduction by a process of gradually increased flexion of the forearm, held in a successive series of moulded plaster splints as new angles of forearm flexion are gained. Ancient cases with gross deformity, lack of range of motion or much new bone formation may be operated upon by a qualified surgeon who will exercise great care to avoid further new bone formation, so easily met with in adolescence. A few of these poorly functioning joints in adults may warrant arthroplasty.

Fracture of either the external or internal condyle are caused by falls on the forearm or elbow or lateral flexion force received on the forearm and transmitted to the humerus, usually without injury of the collateral ligaments of the joint. Fracture of the external condyle may accompany fracture or subluxation of the head of the radius and the broken fragment of the humerus, depending on the age of the patient, may involve the epiphysis, passing completely or partially through it. The fragment of the humerus in children is almost universally displaced outward and rotated, pulled by muscles taking origin in this area. Fractures in industry and in adults may be comminuted. All of these directly involve the elbow joint and lead to hemarthrosis and a marked tendency to change the carrying angle, letting the forearm angulate outward into cubitus varus. On the inner aspect of the elbow the fracture is not always truly intra-articular, but may involve not only the epiphysis but also the epicondyle and its attached muscle origins. There is no doubt that the tug of the muscles causes rotation of such fragments and interferes with manipulative reduction and retention by ordinary splinting measures, no matter in what degree of flexion or extension the forearm is maintained. The median, radial or more often the ulnar nerve, singly or in combination, may be involved in the primary trauma or in the healing process by inclusion in scar or callus or from long standing trauma and stretching when epiphyseal and bone growth has been interfered with. From internal condylar fractures develops late the well known clinical type or delayed ulnar palsy,

which may not manifest itself until years after the original injury.

The radiographs of these injuries, which occur at all ages, must be closely examined and supplemented by oblique views on occasions when there is any doubt about the displacement of bone and cartilage. Fragments of either, with muscle attachment or free, may become obstacles in the joint to obstruct full flexion or extension and may cause excess new bone formation with increasing diminution of joint range or late nerve symptoms. In viewing the roentgenogram the cartilaginous portions of the humerus entering the joint in young children are frequently overlooked on account of their shadow casting power or their silhouette on the film being overlapped by heavy bone.

Complete reduction by manipulation may be impossible; it is often very uncertain. Nearly all of these fractures require open operation to search the joint for small dropped in fragments and to correct quite positively the great amount of rotation of fragments, at times equalling 180° , to fit them exactly into normal position. This may necessitate freeing the fragment from muscle origins, but these severed attachments can be dropped back into place and rapidly take hold again without noticeable functional loss. The fragment of bone and cartilage should be held in proper place by suture or fixation, using that material which suits the individual case the best. After considerable experience, I find that catgut ordinarily suffices, especially when the fragment is fully freed and not attached to the humerus under any tension. There is no objection to nailing on with a small wire nail if the fragment is not split or damaged. These operations are delicate and require a nicety of technic and had best be performed by a qualified surgeon in controlled surroundings. There is no hurry about the surgery—a few days makes no difference and may be required to perfect skin or other conditions. What is done at the operation is permanent and even the greatest care may result in some loss of function in the joint. Immobilization after fixation or reduction by any method must be quite prolonged and the forearm is generally kept in flexion during this period. Rarely the fragments can be held apposed only when in a position of complete exten-

sion. One waits for all traumatic insult to quiet down and the bone to become annealed before starting active movements, which are guarded, which aim to keep a full amount of useful flexion and not cause pain or new bone formation. Final results are reached after six to twelve months.

Some long neglected cases can be bettered by late operation, but seldom by manipulation. This class may involve median and ulnar nerves leading to delayed palsies and treatment by neurolysis or transplantation of the nerve out of harm's way.

The grossly comminuted and widely separated fractures of the humerus into the elbow joint resulting from falls or blows are most difficult to reduce and immobilize. Suspension traction by adhesive tape on the skin with the forearm out in a straight line, with intact ligaments, may suffice to hold fragments in good position as determined by x-ray examination in two planes. After two and one-half to three weeks this confining treatment may be supplanted by a moulded plaster of Paris splint, with the elbow in partial flexion, increased every two weeks. The fragments must not be displaced or allowed to widen during such a course. Others are apparently irreducible by this skin traction which may be replaced by Kirschner wire traction through the olecranon with the forearm held flexed at a right angle, with the patient either recumbent or ambulatory, using a plaster of Paris dressing which embeds the wire, forearm in supination and hand supported by the dressing. Open fixation is reserved for the obdurate case in which a wire cerclage or transfixion may be required to bring fragments together followed by adequate fixation in plaster for four to eight weeks. Nerve injuries, while infrequent, must be searched for at the time of injury and adequately cared for by suture or neurolysis. These operations similarly require well trained surgical skill.

Fractures of the olecranon generally follow indirect violence or pull of the triceps tendon during falls on the flexed forearm. They are truly intra-articular fractures and may be sutured with wire or other material through an open incision. They should then be immobilized in nearly full extension for two and one-half weeks and active flexion in mild degree may then be started. Some separation of fragments may follow.

One should not rely too much on any type of internal fixation and begin active movements too soon or too vigorously. There is much doubt whether operated upon fractures of the olecranon, with all the dangers inherent to open procedure, give better results than those not operated upon, but treated by immobilization in full extension with graduated use following. One should ponder carefully and operation must not be lightly undertaken in these fractures. The same careful after-care when splint is removed is required by both types of treatment.

Fractures of the head of the radius occur at all ages, even in infancy, and may be accomplished by subluxations from tearing or rupture of the orbicular ligament. When the infant first starts to walk and is held by the hand, subjected to sudden jerks in hyperextension of the forearm by accompanying nurse or parent, subluxation or "pulled elbow" often results. The child cries without apparent cause—but will not use the hand of the affected arm. X-ray examination should reveal the true condition. The reduction may not be difficult but recurrence easily follows and the forearm should be dressed in full flexion onto the arm held by bandage or moulded plaster of Paris for three weeks.

If the head or neck of the radius is fractured, the break may be complete or incomplete, the latter type existing as cracks in the bone running down the head, without fragment displacement. These, however, are true fractures, they entail hemarthrosis,

they require immobilization in moulded plaster of Paris and a sling support with the forearm flexed and in full supination for two or four weeks depending on the patient's age.

Fracture of the head of the radius involving gross displacement in young children may be partly reduced by manipulations, using pressure over the fragment, followed by flexion of the forearm, fragment position to be checked by x-ray. The immature elbow joint of youth will tolerate a certain amount of fragment displacement and return ultimate good function if time is allowed for bony healing. In adults, however, the fully matured and completely packed elbow joint will not tolerate displacements as new bone formation or healing on of misplaced fragments will surely influence pronation and supination of the forearm and may check the range of flexion and extension. These patients require careful x-ray study and examination of elbow, forearm and hand. Consultation is usually advisable because a fair percentage require operative removal of the comminuted head which may be found on exposure to be more severely fractured than the x-ray examination would lead one to believe. Removal of the head of the radius is a technically difficult procedure, to be undertaken only by a qualified surgeon who will guard against later new bone formation around and in the elbow by a proper period of post-operative immobilization and a kindly inception of active use. Very few such injuries result in complete functional return.

POSTOPERATIVE OXYGEN THERAPY

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Oxygen, since its discovery in 1775, has played a varying rôle. At first used in the chemical laboratory for experimental work and used therapeutically for the first time in 1780, it had persisted in remaining there for many years. Into industry it has found its way through the laboratory, and in the last two decades it has entered the field of clinical medicine. At first the field was extremely limited because of the expense associated with the building of an oxygen room. Soon the results of these investigations broadened its clinical use, and, with the advent of oxygen tents, a wider use was possible. Today I shall try to demonstrate to you how it can be used as widely and generally as any well known household remedy. First, I want to go into the therapeutic use of oxygen and show, if I can, how much

more often oxygen should be used, especially in the postoperative period of patients.

In the normal individual, nature has provided an excellent mechanism for ordinary

use, and also for emergencies. The heart has a certain reserve which can be called upon, and the liver has so much reserve that the normal individual could get along with about one-fifth of that amount. Our blood chemistry is delicately balanced and protected to prevent either an acidosis or an alkalosis. The respiratory mechanism is adjusted to keep up a sufficient oxygen supply for the blood, and to remove carbon dioxide gas to prevent an accumulation. There are others. Suffice it to point out these well known examples.

In the surgical patient the condition that obtains may vary from a surgical condition with a complete normal mechanism to one with one or more systems partially impaired, moderately impaired or badly damaged. We have clinical and laboratory means to determine the amount of damage in some of the systems, and in others our means are very inadequate, so that even the most perfect evaluation by clinical and laboratory methods leaves something to clinical judgment. It is difficult to determine the reserve, how soon it will be used up, or what insults it will withstand. To protect this reserve and prevent it from becoming exhausted has been the problem, not only for the surgeons but for all medical men.

The human body is influenced by an operation in various ways. The anesthetic depresses metabolism, reduces reflexes, produces a certain amount of acidosis, some dehydration, and a leukocytosis of one and a half to two and a half times the pre-anesthetic count.⁴ The operation itself produces a lowered general and local resistance, pain and fever, and the phenomena of inflammation with the physiologic and pathologic changes attendant upon the type of operation performed. This means an extra load is put upon the body mechanism, a call upon the reserve, and the biggest load comes upon the myocardium, which has to furnish oxygen and food and remove carbon dioxide and waste products.

Various factors have been taken care of, such as pain, dehydration, and acidosis. The heart, which has to bear a tremendous load, if it shows signs of weakening, receives digitalis, coramine, caffeine, sodium benzoate, etc. The use of heart stimulants when the heart is overloaded is likened to using a switch on a tired horse that is stuck with a load. The use of oxygen for

the overburdened heart, instead of applying the switch to the tired horse, takes off some of the load. Modern medicine should look forward and see if there is a way to lighten the load and prevent a breakdown.

That the load could be definitely lightened was demonstrated to us in a toxic thyroid. We used an intranasal catheter and ran oxygen into the oropharynx. The heart rate, which was 160 per minute, dropped to 100. When the oxygen was reduced or stopped the rate immediately increased to 130. This experience has been repeated many times. The experience at the Wisconsin General Hospital has shown that, in cases in which oxygen therapy is effective in reducing the load on the heart, the heart rate will decrease in a very short time. If in three hours there has been no drop in the heart rate, there is little use in using oxygen.

Wright⁶ has pointed out that the velocity of exchange of a gas between lung and blood depended on: (1) pressure difference, (2) solubility of the gas in blood, and (3) the property of the membrane. We have some idea of the effect of oxygen deficiency on the human mechanism. Clinically we recognize three types of anoxemia as described by Barcroft¹: (1) the anoxic in which the oxygen tension is reduced and the hemoglobin not completely saturated; (2) the anemic type in which the oxygen tension is normal but the hemoglobin is reduced; (3) the stagnant type in which the time volume of oxygen-laden blood supplied to the tissues is low. Boothby² adds a fourth called the histotoxic in which the cells are incapable of using oxygen, as in cyanide poisoning.

The compensatory mechanisms to meet this anoxemia are an increase in the ventilation of the lungs, an increase in the heart rate throwing more work on the heart, and an increase in the number of red cells. This increase takes place as a result of a contraction of the spleen forcing more cells into circulation, and an increased activity in the hematopoietic system.

Wiggers⁵ shows the chemical changes between inspired, alveolar, and expired air under normal circumstances:

	O ₂ per cent	CO ₂ per cent
Inspired air	20.92	0.04
Alveolar air	14.5	5.3
Expired air	16.4	3.8

If the oxygen of inspired air is reduced to 14 per cent, the force and the rate of the heart are considerably increased. Tissue anoxia results in definite parenchymatous changes. Brief interruption of the arterial supply to the kidney results in anuria for hours, and lesser impairment of the circulation leads to glomerular dysfunction. The secretions and movements of the gastro-intestinal tract are decreased; and for various tissues there are possibilities of damage, from very minimal, which is hard to estimate, to tissue death.

Furthermore, we know that the solubility of a gas is diminished by the salts present in plasma and blood. With an impaired circulation, the salts and waste material pile up and the solubility is reduced, the membrane may change, and the rate of breathing is impaired as a result of position, anesthesia, or alkalosis.

Oxygen therapy should be based on a clinical evaluation of the patient, the type of anoxemia recognized, and appropriate measures instituted. If the patient has an anemia, oxygen therapy will aid, but the addition of a blood transfusion will furnish some hemoglobin and stimulate the hemopoietic system. The lowered tension of the oxygen can be remedied by the oxygen therapy. This we see every day when fliers at high altitudes use oxygen. In the stagnant type the time volume of blood that is delivered to the tissues is increased by heart stimulation. In the histotoxic type the use of phlebotomy with transfusion and oxygen is the rational treatment.

There are conditions in which one's clinical ingenuity is taxed. In pulmonary edema, the alveolar spaces are filled with fluid; in consolidation of the lung, the spaces are also obliterated and the epithelium of the alveolar spaces may be modified by gases. By increasing the tension of the oxygen a sufficient amount may get through the damaged epithelium or fluid to keep the patient alive.

A very important fact to remember in oxygen therapy is that there is no store of oxygen anywhere in the body. If the body needs oxygen, the supply furnished must be continuous. Interrupted administration is useless.

Where the respiratory rate does not permit of an interchange of the alveolar gases, the addition of 5 per cent CO₂ to increase

its tension and to build up a carbon dioxide reserve which will stimulate the respiratory center, and allow a proper exchange of gases, is very efficacious.

In clinical work in surgery we are usually not dealing with definite types of anoxia. In surgery we are increasing the load on the systems of the human body, and the first evidence comes in an increased heart rate. This load we can decrease. To improve this situation we can change the oxygen content of the inspired air. Rovenstine, Taylor, and Lemmer³ have shown by chemical analysis of samples of air from the trachea and the bronchus that the percentage of oxygen can be definitely increased by the oropharyngeal insufflation of oxygen. Their findings are shown in Table I:

TABLE I

O ₂ c.c. Per Min. None	At height of inspiration		Average		Minimum		No. of anal- yses
	O ₂	CO ₂	O ₂	CO ₂	O ₂	CO ₂	
2000-2500	18.8%	1.8%	16.4%	1.7%	15.9%	1.6%	3
4000-4500	29.5	2.0	26.2	1.7	29.1	2.7	1
6000-6500	59.1	1.5	29.3	2.3	54.4	1.7	2
8000-8500	65.2	2.0	57.3	1.6	60.0	1.6	8
At height of expiration							
4000-4500			31.2%	5.7%			1
6000-6500	56.6%	5.6%	55.1	5.8	53.6%	6.0%	2
8000-8500			61.3	4.9			1

From these figures it is definitely shown that the oxygen concentration can be accomplished by means of oropharyngeal insufflation of oxygen. This means that oxygen can be used clinically anywhere, from the best equipped hospital to the farm house. It is no longer beyond reach of any practitioner of medicine, nor need it be limited to the postoperative convalescent. Our hospital is piped for oxygen and the oxygen stored in a separate building. Any and every patient who needs oxygen gets it. Every interne learns in a very short time to master the details. An analysis now underway by the department of anesthesia shows how oxygen may be wasted. If there is no drop in the pulse rate in three hours with the oxygen flowing at six liters per minute, it might as well be stopped and the oxygen saved. There are cases in which it is not necessary, but is used in a routine way instead of picking the individual case requiring the oxygen therapy. Table II gives a report on the oxygen therapy for

POSTOPERATIVE OXYGEN THERAPY—SCHMIDT

the last year compiled by the department come dilated and make pressure on the
of anesthesia: heart.

TABLE II

No. of cases	Postoperative Treatment by Agents				
	C ₂ H ₆	Ether	N ₂ O	Spinals	C ₂ H ₄
2343		531	476	278	189
Oxygen therapy	2.86%	4.9%	10.7%	5.4%	10.5%
Intravenous therapy	2.51	4.9	2.9	11.95	4.23
Transfusion	1.24	0.94	1.05	2.16	8.46
Opiates	26.82	36.4	42.2	68.7	60.8
Morphine Combination	0.26			0.72	
Carbon dioxide	0.26	0.75	0.21	2.16	
Subcu. & Procto.	32.1	27.7	17.2	61.8	23.8
Miscellaneous	11.8	9.62	13.7	9.7	18.5
Total cases with treatment	67.9	47.3	54.9	86.7	73.6

Oxygen Therapy by Risks		
Risk	No.	Per cent
E	2	1.12%
A	3	1.68
B	57	31.9
C	80	44.7
D	32	17.9
ID	5	2.7

Oxygen Therapy by Services		
	Total cases	Oxygen Therapy
All services	4133	179 4.09%
Surgical	1354	9.97
Gynecology	772	0.39
Orthopedic	760	0.79
Genito-urinary	363	4.13
Plastic	142	4.23
Ear, Nose & Throat	237	1.69
Eye	117	0.85

Oxygen Therapy by Operation			
Mastoidectomy	2	Rectal operation	1
Bronchoscopy	1	Superficial major	1
Cleft Palate	6	Superficial minor	1
Cystoscopy	1	Other general surgery.....	1
Bladder operation	4	Open reduction fracture.....	1
Hysterectomy	2	Manipulation and cast.....	1
Cholecystectomy	14	Tonsillectomy and adenoidectomy.....	1
Splenectomy	1	Other eye operations.....	1
Gastric resection	2	Sympathectomy	1
Intrapleural operation	1	Ventral hernia	2
Craniotomy	6	Stabilization, reconstruction joint.....	2
Thyroidectomy	75	Urethral dilatation	1
Thoracoplasty	19	Gastro-enterostomy	1
Rib resection	5	Transurethral prostatectomy	8
Laparotomy, others	4	Suprapubic prostatectomy	1
Inguinal hernia	3	Nephrectomy	1
Kraske	3	Spinal fusion	1
		Exploration knee	1

(A film was shown depicting the technic of oropharyngeal insufflation of oxygen.)

A word to emphasize the proper placing of the catheter: By putting the catheter in the nostril or nasopharynx a concentration of only 30 per cent of oxygen can be obtained running the oxygen at a rate of six liters a minute. If it is properly placed in the oropharynx, a flow of six liters will give a concentration of 60 per cent or more. Putting the catheter further down so that the esophagus is entered, the stomach will be-

Conclusions

1. Patients who present themselves for operation should be evaluated, but in spite of clinical and laboratory methods the reserve mechanism of the body cannot be accurately measured; the final determination rests upon sound clinical judgment.

2. An operation and an anesthetic add to the demands made on the body reserve.

3. Certain of these factors have been met, such as pain, dehydration, and acidosis.

4. Rapid heart rate is an early sign of increased heart load.
5. Relief of the myocardial load has been only partially met, and treatment postponed until weakness is shown.
6. Oxygen therapy lessens the myocardial load and tends to prevent a breakdown.
7. A technic is shown whereby oxygen can be used universally.

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THE OBLIGATIONS OF THE MEDICAL PROFESSION IN RELATION TO MENTAL HEALTH*

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F. G. EBAUGH

I consider it fitting and proper to introduce the following remarks with a series of questions, namely: What is mental health? How may we secure it? In what way or ways do we lack it? What would we have if we could have it?

Mental health has been considered from two points of view.⁹ First, from a positive or direct point of view. There has been in recent years a tendency to emphasize mental health as a goal for all society; to consider mental hygiene a philosophy, a way to life; to state its objective as that of a wholesome, happy, well balanced human existence, with

the hope of maximum adjustment capacity to any and all difficulties that may present themselves in a life course. This positive concept of mental health is being appreciated in an increasing manner. But with the positive, there is a negative phase. This is and has been the scientific approach to the various deviations from healthy and wholesome living. It is this phase which has led to a more thorough understanding of the healthy person. That this has been the method of scientific approach in physical medicine must appear obvious to you. One need only recount the chapters of progress in infection, nutrition and degeneration to understand the evolution of knowledge that has led to a better appreciation of growth, metabolism, and immunity.

In its earlier days, mental hygiene had to do with the more conspicuous and obvious deviations of behavior, namely, insanity. That this remains as part of the work

set out for mental hygienists is apparent. A statistical statement of the problem of mental disorders in our nation today reveals the need for further and more intensive study of cause, course and outcome of abnormal behavior.

Yet, there has been a tendency to associate mental hygiene with the consideration of the subnormal, the psychopathic, the delinquent, the eccentric, to the exclusion of what has been termed the positive phase of the movement. Important as the negative phase is, it is apparent that it is not the only significant aspect. In other words positive mental health is considered as the real goal of mental hygiene. In his Salmon lectures, White stated:¹⁰

"The mental hygiene movement is essentially, as it exists today, a public health movement which has as its major objective the prevention of the disabilities and wastage of mental disease. It has as its goal what I think can best be defined as the good life, perhaps qualified by the additional words *well lived*. Its realm is what I would call the psycho-social level of development, and its

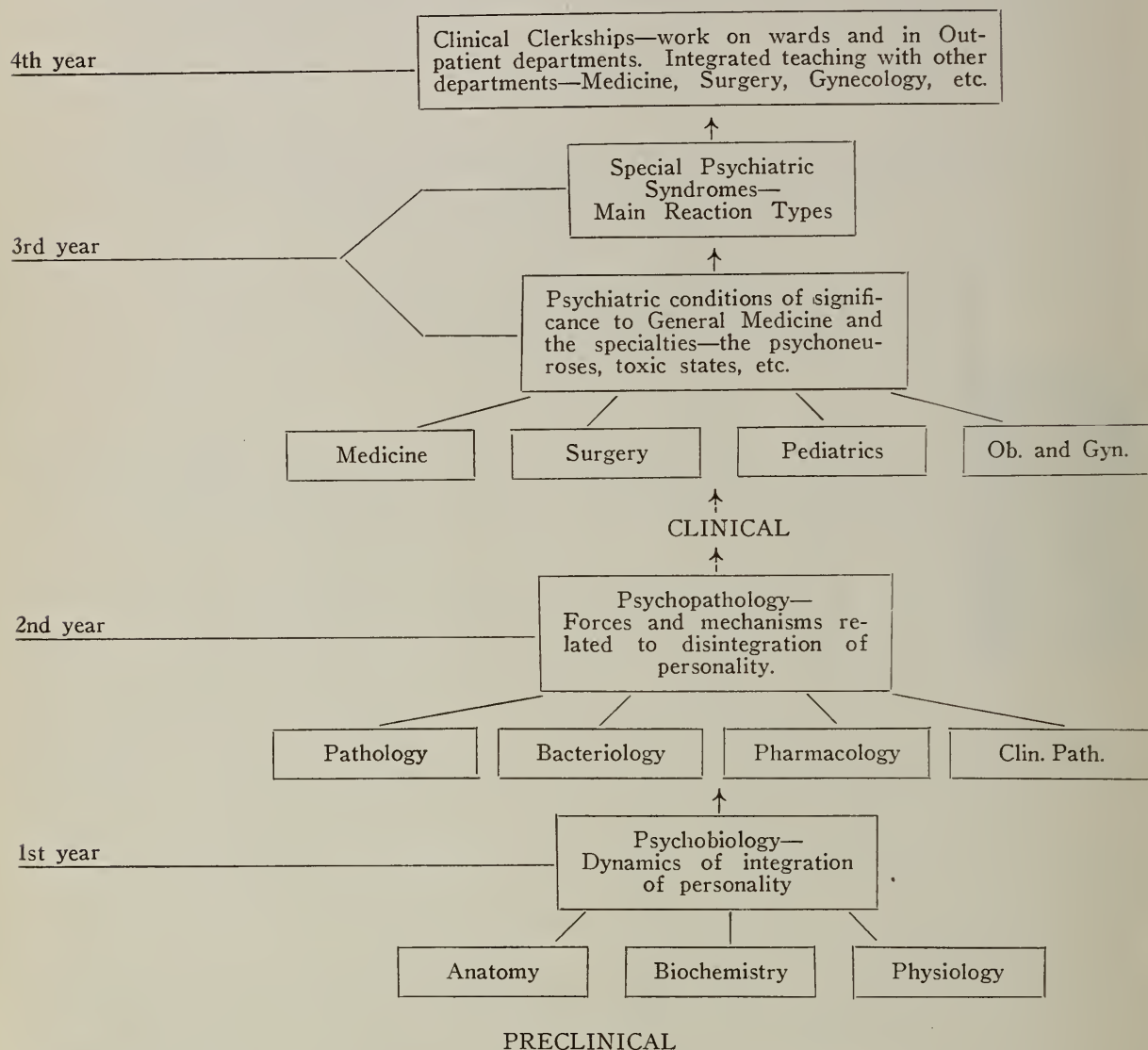
*Read at the Annual Meeting of the Michigan State Medical Society, Detroit, Michigan, Wednesday, September 21, 1938.

methods must be evolved from the basic facts that are contributed by the various sciences which make for the understanding of human behavior."

Scientists, physicians, educators and sociologists are becoming increasingly aware

has made genuine and permanent progress and that the student of today is well prepared for entrance to the medical school. He finds organized adequate instruction in both the preclinical and clinical years. How-

OUTLINE FOR PSYCHIATRIC TEACHING⁴



of the need to understand and develop the positive phase of mental hygiene.

In the following I shall try to point out the progress which has been made in psychiatric education. This shall help us to comprehend the means by which the student of medicine becomes prepared to understand both phases of mental hygiene.

Time will not permit a thorough review of the historical steps in the improvement of medical education. Suffice it to say, that, in the past three decades, medical education

ever, without depreciating these steps, it must be stated that the study of medicine has wandered somewhat from its primary and original purpose, namely, the study of man in health and disease. There has been a tendency to devote an undue amount of attention and effort to organ and system function to the neglect of the integrated unit of personality. That a correction of this tendency is in process is evidenced by the adoption of standards for the teaching of psychiatry.³ This has led, naturally, to

consideration of premedical preparation, in which it is hoped that the students of the future will be better grounded in the social sciences together with chemistry, physics, and biology; and to the introduction of four-year psychiatric teaching programs in the medical schools. The purpose of the latter is to introduce the study of normal personality through attention to the concept of psychobiology. This enables students to understand themselves and to comprehend the variations of personality behavior which may be encompassed within the normal range. In the second year of medicine the student is taught the methodology of examination as well as the concept of psychopathology, the study of the content and motivation of abnormal behavior. In the clinical years he is taught to recognize, understand and treat the various personality deviations which occur in children and adults. (A slide was shown demonstrating the four-year plan of psychiatric instruction.)

This, then, has led the physician to recognize, understand and utilize the two phases or objectives of mental hygiene.

To return to the direct, immediate or positive phase of mental hygiene, namely, the understanding of self, leads one to consider its nature and necessity. It is my belief, that the personality study which is done by the freshman student, together with the course in psychobiology, is of inestimable value in securing a more thorough understanding of self. Through such understanding one may gain a way of life that shall enable one to attain the optimum of mental health and personality development. In the study of man, in particular relation to maldevelopment, injury and disease, which is our chosen field, it is more than necessary for us to understand ourselves. In this respect the aim of mental health may be defined as "the adjustment of individuals to themselves and the world at large with a maximum of effectiveness, satisfaction, cheerfulness and socially considerate behavior, and the ability to face and accept the reality."⁷

One can readily understand how the positive phase of mental hygiene is preventive in nature. I believe sincerely that mental hygiene leading to better personal and interpersonal adjustment does and will prevent some degree of the personality disorders,

common to each of us and present in the neurotic and psychotic groups.

Proceeding, then, to the second obligation of the medical profession in relation to mental health, the recognition, interpretation and treatment of the more manifest mental disturbances, we approach the problem as it exists today.

It will not be possible to discuss thoroughly the mental health problems as they exist in the schools and colleges. Nor will it be within the scope of this paper to deal with problems of delinquency and crime. Suffice it to say that the general practitioner is often the "first man on the scene" when "Johnny" or "Mary" is brought to him for advice concerning impersonal, personal or interpersonal difficulties. We believe it is necessary for the physician to be able to understand, at least in part, the motivation of the antisocial or asocial child and to be able to recognize problems of sufficient severity to need expert aid. The work that has been done by physician-psychiatrist in the pre-school, grammar, secondary and college divisions of education has pointed out the need for a change in educational standards which will lead to a goal of happier and more wholesome living. In this respect, the studies of Raphael⁸ in the University of Michigan should be mentioned. During the seven years the Mental Hygiene unit of the Student Health Service has operated in Ann Arbor, it has given attention to 4,769 students. Surely, this work is fundamental to any mental hygiene approach.

In a more pertinent vein, one proceeds to the problem of the personality disorders as they are seen by the general practitioner. One may ask what is the nature of the psychiatric problems most frequently encountered in general practice? Is it necessary or desirable for the average physician to refer all of these problems to the specialist in mental disorders? What is a necessary minimum to enable the physician to recognize, understand and treat the various and sundry people who suffer from personality disturbances?

In answer to the first question, the physician encounters any and every type of personality deviation. However, there are some disturbances which occur more frequently than others and some of these, such as the anxiety syndromes, the depressions,

early schizophrenic reactions, the toxic organic and the organic groups will be discussed in some detail.

It is neither necessary nor desirable for the physician to refer all cases to a specialist. As has been stated previously, the present aim of psychiatric education is to prepare the physician to deal with most of these problems in a sympathetic and efficient manner. As to the necessary minimum of information we believe that a planned study of the personality factors involved in psychiatric disorders greatly enhances the likelihood of successful therapy, although we all know of highly gifted clinicians who deal more or less successfully with many of them without this aid. Everyone agrees that emotional, social, situational and kindred factors may cause complications in any somatic illness, but without some sympathetic knowledge it is difficult to deal efficiently with the mass of facts accumulated by investigation. As an aid to the practitioner we recommend the outlines for investigation of the past history, the family situation and heredity, the origin and development of the present illness, the underlying personality of the patient and the specific symptoms and signs of the various reaction types which may be found in any of the standard textbooks of psychiatry.

(With the aid of the lantern slides which followed, the significant findings of the historical data and examinations which should suggest various reaction types were shown.)

It should be clearly understood that outlines such as these are, are far from being complete and are utilizable only in the sense of orientation in diagnosis.

DATA WHICH WOULD SUGGEST BEHAVIOR DISORDERS IN CHILDREN (modified from Kanner⁶)

- I. In connection with Physical Illness.
 - a. Mental Deficiency
 1. Hereditary and congenital—mongolianism, amaurotic family idiocy, syphilis.
 2. Acquired — encephalitis, meningitis, trauma, cretinism, convulsive disorders, etc.
 - b. Transient disturbances during and following somatic illness.
- II. Part Dysfunctions.
Constipation, enuresis, tic.
- III. Whole Dysfunctions.
 - a. Unhealthy emotional reactions (fear, anger, spite reaction).

- b. Thinking difficulties (day dreaming, lack of attention and concentration).
- c. Acute social trends (disobedience, lying, stealing, truancy, cruelty).
- d. Sexual disorders (masturbation, homosexual and heterosexual activity).
- e. Disorders of sleep (insomnia, hypersomnia, inversion of sleep rhythm).
- f. Faulty teething habits (capricious appetite, loss of appetite, etc.).
- g. Habitual manipulation of body (chewing, sucking fingers, clothes, etc.).
- h. Attack disorders (typical and atypical convulsive disorder).
- i. Major and minor psychosis (hysterical, anxious attacks, manic, schizophrenics).

DATA WHICH WOULD SUGGEST PSYCHOPATHIC PERSONALITY

1. Early evidences of poor emotional control: temper tantrums, moroseness, self assertion, undependability, impulsiveness, egocentricity, querulousness.
2. Long history of asocial or anti-social behavior with vagabondage, drug addiction, prostitution, crime, etc.

DATA WHICH WOULD SUGGEST MENTAL DEFICIENCY

1. Evidence of physical and intellectual retardation, as in age of walking, talking, school record.
2. Formal psychometric tests (Stanford-Binet).
3. Hereditary and congenital feeble-mindedness, mongolianism, amaurotic family idiocy, cretinism, syphilis.
4. Developmental deficiency, meningitis, encephalitis, trauma, etc.

DATA WHICH WOULD SUGGEST PARANOID REACTION

- a. Rigid, proud, sensitive and suspicious personality.
- b. Inability to adapt to reality or to sense the need for correction.
- c. Irresistible tendency to systematization by false interpretation.
- d. Projections in the form of jealousy, persecutions, interpretations, and the urge for vindication.

Anxiety Syndrome

And now, in more detail, a consideration of those syndromes frequently encountered in general practice with some remarks as to therapy.

DATA WHICH WOULD SUGGEST PSYCHONEUROTIC REACTION TYPE

1. Excessive prolonged concern over essentially normal bodily functions.
2. Anxiety states with fear of impending disaster and bodily expressions of headache, palpitation, tension, sweating, etc.
3. Obsessive thoughts, ritualistic behavior and motor tics which appear to be inescapable even with awareness of their essential uselessness and "foreignness" to the person.
4. The cutting off of essentially normal functions and experiences from participation in life activity with loss of ability to return them to use. Hysterical paralyses, anesthetics, amnesias, dream states and fits.

First, in respect to the psychoneuroses, the most common type is that of anxiety. While the general practitioner does encounter many personalities with hysterical and obsessive-compulsive symptomatology, it is the anxiety syndrome and its aromatic repercussions that he meets most often.

The anxiety syndrome⁵ was first described by Hecker in 1893 but did not receive general recognition in this country until after the war. It has been known by many misleading terms, including "disordered action of the heart," irritable heart, neurocirculatory asthenia, et cetera.

The clinical picture varies in the number, character and severity of the subjective and objective symptoms. This is dependent upon the underlying personality matrix of the individual. It is important to understand that the person is basically anxious and that anxiety syndromes may be symptomatic of other mental disorders such as depressions, schizophrenia, and even organic disturbances associated with paresis and trauma. The anxiety may be associated with some physical disease such as tuberculosis, thyrotoxicosis, diabetes or pernicious anemia. It always occurs in an individual who is inclined to be tense and uneasy, with rather sudden transient attacks varying in duration from a few seconds to an hour and associated with palpitation, precordial discomfort, perspiration, dyspnea, weakness, giddiness and even fainting. Although the symptoms mentioned obviously suggest disease of the various systems, the physician can elicit the presence of the anxiety, *i.e.*, a fear of danger from within, a fear of illness or death, or only a feeling of uneasiness or impending danger. The patient may remark further that he has difficulty in sleeping, anorexia, easy fatigue, or headache, often of the "band around the head" variety. The patient may be irritable, restless, losing weight, or worried without knowing what about or why. A subjective feeling of being cold and unable to warm up is frequent. Direct examination reveals usually a tense, restless, uneasy, apprehensive person with cold, clammy hands and feet, dry mouth and labile pulse and blood pressure which are normal when the patient is asleep. The heart tends to hyperactivity with an occasional premature contraction; the colon may be tender to palpation and the muscle and tendon reflexes fre-

quently are overactive. We have found the peaks of highest age incidence to be between the ages of twenty-one to twenty-five and thirty-six to forty years.

As stated previously, the differential diagnosis should entail consideration of the "symptomatic" anxiety states which may be associated with somatic illness (tuberculosis, hyperthyroidism, diabetes, anemia, etc.); those resulting from central nervous system involvement (arteriosclerosis, paresis, trauma) or those appearing as presenting complaints in the functional mental disorders (depressive and schizophrenic reactions).

It should be emphasized that the diagnosis of a psychoneurotic reaction pattern is not done through exclusion. Oftentimes, we hear the remark that if a careful search for somatic findings is negative, one must come naturally to the diagnosis of a neurotic reaction. But the diagnosis of such a complex phenomenon entails positive as well as negative facts. These positive facts are the data of the personality which informs us of the endowment, experience and capacity of the person.

In treating a patient with an anxiety syndrome, having taken care to rule out any direct or indirect somatic factors which may be causal in nature, we approach the problem of the anxiety syndrome itself. It is important to avoid the pitfalls of telling him that he should stop worrying, or that nothing is wrong, since he is unable to stop thinking about his trouble, and knows quite definitely that something is wrong. Neither is it profitable to say that the heart is in good condition and imply that it is not by giving advice regarding exercises or prescribing tonics. Pseudo-explanations such as saying that the precordial sensations are due to gas in the stomach pressing up the diaphragm and crowding the heart, are also to be avoided, for any suggested treatment which does not deal with the actual etiology of the disorder will cause the patient to wander about seeking help, or discourage him further and thereby increase his depression, hypochondriasis and invalidism. The physician must be prepared to spend sufficient time to be sure of the diagnosis and of the actual development of the illness in that particular patient. This demand discourages some physicians since they feel that this procedure is too time-consuming. If, however, one balances the hour and a half

required for a systematic examination, which will facilitate and shorten subsequent treatment interviews, against the many hours wasted in discouraging glandular and sedative medication, it will be seen that the long initial interview is entirely worthwhile. The anxiety and associated symptoms must be thought of as an expression of dysfunction of the whole person, and treatment should be directed against those factors which are the cause. Complete and thorough physical, neurological, and the necessary laboratory examinations are done. Then attention is paid to the environmental factors. If it is necessary and possible to change occupational or home situations to relieve distress, this should be done. If the causal factors are rooted in the personality, the need for thorough study of the endowments and capacities of the person in relation to the situation is obvious. The serial picture obtained by thorough acquaintance with the patient's problems, assets, liabilities and goals suggest specific measures for that individual. The general types of these measures are known as aëration or ventilation, suggestion, reassurance, desensitization and reëducation.

Treatment

We believe that a few useful sedative and hypnotic drugs should be discreetly used, together with other adjuncts such as hydrotherapy (tubs, packs, sprays, etc.) and exercise. We have found that these measures help in the establishment of rapport. Barbitol, in 1 to 2 grain doses, given two to three times daily, is a useful drug. Spastic constipation may be relieved with tincture of belladonna, minimus 10-15 given 10 to 20 minutes after meals. Hydrotherapy is extremely valuable for relaxation and improves muscle and skin tone and general metabolism. Unfortunately, continuous tubs are not as available as they should be in the general hospitals as they are of particular value in promoting rest and sedation. The patient is usually placed in a tub at neutral temperature (96-97° F.) for one to two hours or more daily. Shower baths employing warm and cold water at varying pressure and cold wet packs may be used.

It is important to remember that psychotherapy begins with the entrance of the patient into the doctor's office. The long initial interview usually has a decidedly bene-

ficial therapeutic effect, because it instills confidence in the patient and points definitely to the prospect of relief. With adequate examination and explanation the majority of anxious patients will usually be able to see the real nature of their illness.

In our experience we have found that if the physician will explain the relation of the symptoms to the underlying fears by giving common examples of visceral participation in emotional states such as anger, fright or excitement, the patient will not concentrate his complaint upon the palpitation, precordial distress, dyspnea, weakness, etc. These symptoms become understandable manifestations of emotions which are common to most people. They are not disregarded as "imaginary" and therefore not respectable.

When explained in a rational manner as the natural physiological concomitants of an emotional state they lose their ominous significance as the possible forerunners of a dreaded "insanity." The diarrhea, polyuria and tension during contests or examinations; the palpitations, perspiration and choking at sudden fright are common examples.

In view of the complexity of a patient's personality and his experiences it will usually be found that multiple factors are responsible for his illness. If possible, causal or contributory situational factors must be altered. Frequently the patient must be taught to accept certain handicaps or limitations or to modify his attitude toward them so that they are not active sources of conflict. The patient should be kept at his regular work if possible. It is always advantageous to enlist the aid of the family, so that detrimental attitudes and barriers to treatment may be removed. If necessary, it is well to acquaint the employer with the nature of the patient's illness so that the former may lend sympathetic assistance. Anxiety syndromes are treatable and the simple measures outlined above, when used with foresight, sympathy and persistence, bring about improvement and recovery in the great majority of cases.

Depression

DATA WHICH WOULD SUGGEST MANIC DEPRESSIVE REACTION

Sustained alteration of mood, usually in well circumscribed attacks. Depressive or elated mood or variations such as anger, suspicion, fear, anxiety.

1. Overactivity (manic). Enterprise, non-restraint, extravagance, clash with environment, sexual indiscretion.
 - a. Increase of psychomotor activity with restlessness, ceaseless activity, playfulness, facetiousness, inattention to sleep, food or care of body.
 - b. Push of talk with flight of ideas, rhyming, punning, clang association, distractibility.
 - c. Exaltation of mood with frequent periods of irritability.
2. Retardation or monotony of behavior and talk (depression). Loss of initiative, interest and hope. Depression of mood with self-accusation, loss of feeling, difficulty in concentration, time felt as eternity.
 - a. Biological components such as sleep disturbances (early morning awakening) loss of appetite, loss of weight, diurnal variation in mood, constipation, loss of sexual desire and menstrual disorder.
 - b. Modification of content, such as delusions of poverty, sin, illness, nihilistic somatic delusions, apprehension of impending punishment or ruin.

Billings¹ has shown recently that 20 per cent of the cases seen by a Psychiatric Liaison Department in a general hospital, present the fundamental disorder of mental depression. This is twice the incidence of depressions that are admitted to the psychopathic hospital in the same city (Colorado Psychopathic Hospital, Denver).

The concept of depression encompasses a great variety of personality disorders.⁵ They may include any change in mood from slight feelings of discouragement, sadness, futility, "the blues," to the major affective disorders which constitute separate and at times distinct clinical entities: depressions in reaction to situations such as death of a loved one, illness, personal defeats, financial loss, or long-continued stress and strain, psychoneurotic depressions, manic depressive psychoses, involutional melancholia, and endogenous depressions associated with arteriosclerosis. We are all acquainted with the manifestations of the slightly depressed mood. With increased depth of depression we become acquainted with a number of more severe signs and symptoms: decrease in activity, dejected facial expression, loss of spontaneity of speech and loss of interest. Ordinary movements are performed more slowly and with heightened effort. The patient, in various ways, expresses that he is downhearted, miserable, different from others and unable to think or concentrate as he had before. Complaints of headaches, dullness, confusion as well as of constipation, loss of taste and appetite, and insomnia are very common. In more severe cases the

patient will complain of feeling unreal and of disorganized function of various organs. If concern with bodily function is associated with bizarre concepts which may be somatic hallucinations or delusions, care must be taken to exclude the possibility of a schizophrenic reaction, as in some instances an initial depressive state may precede its development.

The depression is differentiated from the toxic-organic and the organic groups by the absence of sensorial changes. That is, the patient is usually retarded or slowed, but there is no disturbance of orientation, memory, retention, calculation or grasp of general information. At times the depth of the delusions interferes markedly with judgment, as when ideas of personal wrongdoing, unworthiness, etc., are prominent. Study of the complaint often reveals some degree of insight on the part of the patient. Paranoid trends may be present. Often the mood is one of "impure" depression, that is, mixed with feelings of perplexity, irritability and suspicion. Most common is the admixture of apprehension with depression. Tension, depression and anxiety are frequent concomitants of somatic disease and should be treated by the practitioner with the same care that he devotes to the primary organic disease.

Suicide is a constant danger and it is the obligation of every physician to watch for it and to employ preventive measures. The following danger signals may give the physician hints of a potential suicidal attempt: definite tendency to self-condemnation; expression of feelings of futility; concern over the burden to family and friends; desire to make a will. When these facts are known the physician should employ special precautions such as having someone in constant attendance, removing all sharp instruments, medicine, drugs, and as far as possible ropes, cords, etc. Previous attempts are to be regarded always as serious indications. Usually it is necessary to arrange for hospitalization as an inexperienced personnel is totally inadequate to cope with the cleverness of a determined suicide. It is to be remembered that many patients commit suicide during the convalescent period.

The decision as to whether a given patient be treated as a potential suicide is not only most difficult but of the greatest importance. Many depressed neurotic patients consider or even speak of suicide by way of

"escape," without seriously contemplating it. Here the physician must assume some responsibility in minimizing suicide preventive measures, as their unnecessary use will seriously handicap the patient's recovery.

Whether a patient is suffering from a "true" or symptomatic depression he should be placed in a neutral environment free from annoyances. Visits from relatives and friends should be reduced to a minimum as many times they tend to aggravate or provoke the patient. Only short, cheerful, reassuring visits should be allowed.

While some of that which follows is devoted to the care of the patient in the hospital and thus beyond the usual scope of the general practitioner, it is valuable to be aware of the principle means of approach. In acute phases the physical surroundings should be as comfortable, quiet and non-stimulating as possible. Probing or investigative psychotherapy should be avoided. Very simple reassurance that mood disorders run their course and that the concomitant physical complaints are only a part of the emotional state is the foundation stone upon which the psychotherapy is built. As far as circumstances and the patient's intelligence permit, he should be cautiously "reeducated" as to his mental state and the danger of recurrences thereby diminished. The physician should be cautious to avoid premature increase of privileges, transfer to a more stimulating environment or sudden withdrawal of sedation. The tactful physician will encourage spontaneous discussions with the patient, utilizing the patient's initiative and interest as much as possible and avoiding painful or tabooed subjects until the depression clears up sufficiently to permit investigation. Thus, the material covered in these short reassuring interviews should be noted by the physician in order that it may be employed in future reconstruction of the development of the illness.

The question of when to hospitalize the depressed patient is a highly individual one. Many mixed depressions are being successfully handled through office interviews all over the country. The physician must realize his responsibility, however, and insist upon hospitalization (1) when he detects a potential suicide, (2) when the patient's environment mitigates against recovery, (3) when the patient is in danger of establishing a narrow, stereotyped behavior pattern (rut-formation), and (4) when the

patient becomes a severe nursing problem requiring special attention to safeguard his health.

It is obvious that the activities of a patient in the hospital can naturally be better controlled than at home. In both places, however, it is necessary to avoid monotony, fatigue and too great expectations. Inasmuch as the rhythm of a depression varies, the physician should constantly avoid "overloading" the patient on those days in which he is apt to be discouraged. In our experience, walks, handicraft projects, and superficial conversation are desirable for the more depressed periods. Card games, chess, dancing, athletic games and the indoor competitive games can be utilized for the less depressed periods. Rest periods should be provided but these should be allowed to increase without supervision, since ruminations are fostered by solitary inactivity.

Close attention should be given to the physiologic functions of eating, digestion, elimination and sleep. It is necessary to keep weight charts and to maintain nutrition by urging the patient to eat or, if necessary, by employing spoon feeding. Tonics for the stimulation of the appetite may be employed. Mild cathartics and laxatives are preferable to enemas since the latter may encourage preoccupation. Depressed patients often have an accompanying sleep difficulty usually of the early-morning waking type. A warm sedative tub of from 1 to 2 hours' duration in the evening is often helpful in relieving this condition. If tension phenomena accompany the depression, small doses of barbitol given at those times throughout the day when the tension and depression are at their height are a great aid. We have found barbitol (grains 1 to 2) given 2 to 4 times a day very useful. Larger doses may lead to dullness, headaches and other subjective symptoms which add to the patient's confusion and feelings of inadequacy. Paraldehyde is an excellent drug for an immediate effect, but its taste and odor make it impractical for the treatment of mild depressions. We do not encourage the use of bromides since uncontrolled ingestion leads to toxicity, especially in patients with systemic damage. It is often necessary to explain in detail to patients that the medicines being given them are not narcotics, and will not cause true addiction with the well known withdrawal symptoms. However, it is necessary to keep in mind that there is a very real "psychic

dependence" which is seen in those people with personality disorders, who are helped to escape disagreeable realities by the use of a drug. We need only to cite the example of the various forms of chronic alcohol addiction. The physician is responsible for the complications following the use of drugs prescribed by him. He should be able to recognize the toxic symptoms accompanying prolonged usage or overdosage. The dosage should be reduced frequently in a consistent attempt to divorce the patient from his "crutch." It is desirable that patients who are in the hospital be independent of sedative medication before they are discharged.

The preceding account has been all too brief and special therapeutic procedures were not considered, but if the practitioner will utilize the principles laid down, he will find that he will be able to handle these cases with more assurance and with greater success.

Schizophrenia

DATA WHICH WOULD SUGGEST SCHIZOPHRENIC REACTION

- a. Shut-in, seclusive personality with a tendency to live in phantasy.
- b. A development toward odd or impulsive behavior, increasing preoccupation.
- c. Evidence of loss of the boundaries between self and the outside world, running together of day dreams and historical facts.
- d. Auditory, visual and somatic hallucinations. Ideas of influence, reference and persecution; phantastic symbolization.
- e. Persistent bodily concern of a bizarre quality.
- f. Incongruity of affect and content, inadequate blending of preference and aversion, indifference.
- g. Indecision and puzzling; scattering and blocking.
- h. Motility disturbances such as posturing, mimicking, grimacing.

Time will not permit a detailed discussion of the varying concepts of schizophrenia, its economic and social significance nor the attention attached to it by the claims of the recently introduced shock treatment. However, an outstanding fact is the revelation that most patients suffering from this illness are brought to hospitals at an astonishingly late stage. Although the illness is one with a relatively low incidence it has great chronicity, so that ultimately more hospital beds are occupied by schizophrenic patients than by patients suffering from any other mental illness. That this imposes a heavy financial burden on the community is obvious to all of us.

It is significant that the average patient

is brought to the hospital relatively late in his illness. For example, in many instances when hospital treatment is begun, symptoms have been present for years. If for no other reason than that of recognition, it behooves the general practitioner to know and understand some of the early presenting signs and symptoms. It is to be understood that the following symptoms as noted by Cameron² are by no means exclusive to schizophrenia, nor in any way pathognomonic of the disorder. They are complaints or symptoms which are found frequently in association with schizophrenia and may signal the onset of a more malignant disturbance.

"In the younger age groups there are two fairly well divided trends. In one, there is a slow and gradual evolution of schizophrenia in a person who has from childhood been shy, retiring, odd, somewhat aloof or one who has shown many behavior problems such as temper tantrums, long standing enuresis and emotional instability. In instances such as these there is a gradual accentuation of personality deviation. These patients are rarely recognized before the onset of frank delusional symptoms.

In another manner of development of the younger age groups, the patient, who may have experienced some stress, reacts in an odd or dramatic way which may take the form of stupor, excitement, bizarre forms of exhibitionism, confusion, et cetera."

In the older age groups, the onset is more insidious. There are a number of symptoms which require our special attention. You will remember that we enumerated a number of symptoms which would suggest a schizophrenic reaction. The following are reiterated in an attempt to emphasize their frequency and importance.

1. Withdrawal from reality, with considerable daydreaming, narrowing of interests, active effort to gain solitude.

2. Loss of capacity with difficulty in concentration, loss of ambition, occasional exhibition of poor judgment and decreased adjustment capacity.

3. Emotional dulling with disinterest, callous behavior and inscrutability.

4. Tendency to misinterpretation with early ideas of reference; belief that people are unfriendly, etc.

5. Difficulty in thinking with symptoms of theft of thought, intrusion of thoughts, etc.

6. Physical ailments, with hypochondriacal preoccupation, sometimes leading to somatic hallucinations.

7. Feeling of unreality with loss of identity, change in self, etc.

The differential diagnosis of this illness presents a number of problems. The differentiation from the somatic disturbances, such as cranial neoplasms, epilepsy, post-encephalitic disorders, and the toxic states usually does not present any great difficulty. In the latter the involvement of the intellectual faculties without a primary disturbance of the affect stands out in contrast to the thinking and emotional disorders of the schizophrenic. The greatest difficulty will be had in the differentiation of certain types of manic depressive insanity and the obsessional types of the neuroses. However, a thorough scrutiny of the pre-morbid personality as well as study of the development of the illness and the presenting signs and symptoms should enable the physician to recognize the fundamental personality disorder of the schizophrenic.

The voluminous literature on the treatment of the schizophrenic is evidence of the numerous difficulties of this problem and of the uncertainty in its solution. We may safely say that we know of no specific cure. Recently, two modes of pharmacological shock treatment have been introduced, namely, insulin shock and metrazol convulsion therapy. It is too early to comment with any degree of certainty or accuracy on the therapeutic efficacy of these methods. However, I do not believe that the solution to as complex a problem as schizophrenia is going to be purely physico-chemical. The complexity of the structure of personality, both healthy and sick, with its somatic, personal and interpersonal factors, needs an analysis that must be pluralistic in scope and constantly aware of man as a functioning physiologic, psychologic and social unit. It is not within the scope of this paper to consider the many therapeutic attempts of the past. Suffice it to say, that early recognition should be within the ability of the general physician, that care be taken to avoid detailed probing investigation, that the asocial and anti-social trends of the patient be understood and that special aid be requested as early as possible.

Toxic—Organic

DATA WHICH WOULD SUGGEST THE TOXIC ORGANIC REACTION TYPE

(Delirious reactions, symptomatic psychoses)

1. Primary disturbance in the level of awareness (consciousness).
2. Secondary elaboration of fear, anxiety, delu-

sional and hallucinatory phenomena (usually visual).

3. Physical and laboratory evidence of cardiovascular failure, anemia, avitaminosis, intoxication by sedative drugs, alcohol, heavy metals; infection, and postoperative states.

The general practitioner sees a goodly number of mental disorders complicating other diseases. These are sometimes called symptomatic psychoses, toxic organic reactions, the exogenous reaction types, mental symptoms in somatic ailments and the delirious reaction types.

They are characterized by a disturbance of the level of consciousness or awareness which may vary from slight inattention to profound coma. The secondary superstructure of fear, with delusional and hallucinatory trends is colored individually by the personality of the patient. They are closely connected with somatic conditions in that they are dependent upon, or associated with, intoxications by drugs or poisons, nutritional disturbances, circulatory phenomena and metabolic disorders. These disturbances produce temporary brain changes which are in the nature of edema or the obscure concomitants of fever and acidosis. The occurrence of delirium should not be considered merely incidental to the principal disease picture. It is a complication that may, and in a great percentage does, interfere with the treatment of the presenting clinical problem. To say the least, it increases the suffering, prolongs the duration of the illness and may necessitate special hospitalization of the patient. It may even be a disorganizing factor of such magnitude as to produce chronic invalidism and incompetency. A very large percentage of deliria either are preventable or can be ameliorated if recognized early.

It will not be necessary to recount the characteristic signs and symptoms as they have been noted previously.

Etiologically the deliria may be grouped as follows: (1) those due to exogenous poisons such as alcohol, opiates, bromides, marihuana, barbiturates, et cetera; (2) those due to chronic cachectic states; (3) those due to malnutrition, deficiency diseases and metabolic disorders; (4) those occurring as a part of an "organic reaction" such as in paresis or cerebral arteriosclerosis.

The general facts relative to a delirious reaction as elicited on indirect examination (history of the illness from all sources),

reveal that the onset of the condition usually is quite sudden and frequently makes its appearance at night, or when the patient's surroundings are changed. This onset is characterized by objective evidence that the patient is misinterpreting sounds, conditions and occurrences in his environment, has dream-like fancies and hallucinations and is partially or completely disoriented. The hallucinations usually are vivid and most frequently involve vision and hearing, although the skin may also be involved. If these symptoms are not foremost, then the restlessness of the patient, his tendency to leave his bed and wander away and his reaction of annoyance, irritation or fright may signal the beginning of such a reaction.

From the foregoing it can be seen that the treatment of the toxic psychoses requires knowledge of the whole domain of general medicine. Specific therapeutic measures will be dictated by the type of infection or poisoning which is the basis of the psychosis. It may be wise, however, to consider certain general principles, which are applicable in the majority of cases.

(1) Careful eliminative procedures are fundamental. Among these are catharsis, gastric lavage, attention to the fluid balance of the body and urinary excretion.

(2) An attempt to control infection should be made as well as to eliminate foci of infection.

(3) The efficiency of the "support systems" should be bettered. Cardiac stimulants and regulators should be utilized in case of actual or even threatened cardiac decompensation.

(4) Dehydration and acidosis must be minimized and controlled. Routine dietetic and tonic treatment is required in the management of the majority of the reactions in this group. Transfusions are indicated if the hemoglobin value is below 50 per cent. They are extremely valuable and may be life saving in hemorrhage, secondary anemia, infectious diseases, shock and certain poisonings (carbon monoxide, acetanilide).

(5) If cerebral edema is present, spinal drainage and the cautious intravenous administration of hypertonic glucose or sucrose are indicated.

(6) Sedation and its proper application with full appreciation of its dangers is important. Sedatives are of value in that they enable the patient to rest but they should

never be given for the sake of convenience in nursing care. Hydrotherapy and/or chemical sedation may be employed. As stated previously, the most helpful of the hydrotherapeutic measures is the continuous or neutral tub. The temperature of the water should range from 97.6° (in case of fever) to 99° F. Care must be taken to keep the temperature in the tub room constant. The patient may be kept in a continuous tub for one to twenty-four hours without difficulty. The time element is dependent upon the effect desired and the patient's physical status. It is well known that the vegetative nervous system apparatus of the delirious patient usually is unstable and therefore, shocks in the form of cold water must be avoided. For this reason as well as the need to avoid restraint, packs are usually contraindicated.

Hypnotic drugs should not be given during the day but they are permissible at night. The choice of drug is dependent upon the type of delirium and the causal toxic agent. In general, a quickly acting, rapidly metabolized and eliminated drug, such as paraldehyde is indicated. We believe that paraldehyde has the greatest margin of safety, and is easily and rapidly eliminated. The offensive taste and odor may be disguised by preparing it in iced lemon or grape juice for oral administration. It may be administered rectally in mineral oil. It is important to give the hypnotic in a large enough dose to cause sleep and should be administered before darkness, since the latter is prone to increase the patient's disorientation and fear. The problem of sedation is a very important one, inasmuch as there is a tendency to use drugs indiscriminately and promiscuously. If care will be taken to avoid overdosage and to recognize sensitivity, for example, to the barbiturates, a great many toxic reactions caused by chemical sedation may be avoided.

(7) The nursing care is worthy of a great deal of careful consideration and requires understanding, ingenuity and skill. The patient must continually be reassured as to the intentions of the nurses and physicians. Furthermore, the management of the environment with the elimination of disconcerting shadows, sounds and movements, is necessary for the comfort and progress of the patient. He should be safeguarded from accident and suicide during the acute manifestations of the psychosis.

(8) It is valuable to note in detail the behavior and verbal production of the delirious patient as these may aid in the eventual analysis and reeducation of the personality. In this respect, the use of more specific psychotherapy should begin during the convalescence.

(9) Last, but certainly not least, a word for prevention. Although it is true that medical men usually are not called until the delirium is "full blown," the surgeon often has it within his power to prevent and control these reactions. One need only mention adequate preparation for the operative procedure, cautious use of basal and other anesthesia, judicious postoperative care avoiding oversedation, toxicity and dehydration to be aware of the various preventive aspects of the problem.

Organic Reaction Types

DATA WHICH WOULD SUGGEST THE ORGANIC REACTION TYPE

1. A long record of effective life performance, followed by a striking decline with character and personality change.
2. Evidence of impairment of the sensorium (disturbances of memory, retention, judgment, etc.).
3. Neurological and serological evidence of involvement of the central nervous system.

Proceeding, then, to the organic reaction types, we meet the various clinical syndromes with which most of you are familiar. In almost all of these conditions, a definite organic lesion is present, and this lesion, if recognized, gives the physician a tangible explanation for the accompanying personality changes. In general, the organic reactions are characterized by chronicity of course. They are dependent upon focal or diffuse, more or less permanent and intrinsic changes in the central nervous system. Obviously, transition states may exist between the delirious and the organic reactions types. Causally, the latter are associated with organic toxins, metabolic disturbances, syphilis, arteriosclerosis, neoplasm, trauma, senility, certain of the epilepsies, eclampsia and organic residuals of meningitis and encephalitis. While the clinical picture varies from case to case, and the etiology and duration of the diseases differ, the characteristic features of this type of disorder are as follows:

(1) A definite organic change exists in the central nervous system. This may be in the nature of nutritional disturbance, neoplasm, inflammation or degeneration.

The motor and sensory reflexes are often disturbed, and these disturbances may lead to derangements of speech and equilibrium and to difficulty in writing and walking. Special laboratory and clinical procedures, such as the study of eye grounds, perimetry, spinal fluid, encephalography and ventriculography, are of value in the diagnosis of these conditions.

(2) Personality changes are striking and are reflected both in the deterioration of ethical feelings and in the development of behavior patterns inconsistent with the individual's former habits. For example, a respectable person may become vulgar and obscene, and a frugal, conservative individual, extravagant and grandiose. On the other hand, the symptoms may represent an accentuation of the normal constitutional makeup. Thus, paranoid forms of senile deterioration may develop in persons who have always been suspicious and distrustful, and paresis may have a depressed or manic coloring, somewhat in accord with the patient's previous reaction pattern.

(3) The affect is characterized by emotional instability with marked fluctuations in the mood. Thus, the individual may exhibit almost mercurial changes from joy to sorrow and back again.

(4) Mental changes are quite characteristic and result in a decline in the patient's business and intellectual efficiency. Periods of confusion, fluctuations in the level of attention, with memory loss, disorientation, lack of comprehension, disturbance of judgment and even delirious states are common.

(5) A great number of these reactions are preventable. Particularly in relationship to the central nervous system forms of syphilitic invasion.

(6) The prognosis varies and is dependent upon the causal factors, but, in general, is poor.

Time will not permit a detailed account of the treatment of the organic psychoses, but it will suffice to say that therapy should consist of two approaches. The first or direct should be directed towards the causal agents, if possible. For example, the treatment of the syphilitic psychoses should consist of some form of hyperpyrexia, together with or followed by arsenical chemotherapy. The treatment of an organic psychosis due to a cranial neoplasm should be the removal, if possible, of the tumor.

The second or indirect phase of treatment

is directed toward the alleviation of symptoms. This usually consists of cautious sedation, hydrotherapy, reeducation, and, if necessary, hospitalization.

Conclusion

I am very happy to have had this opportunity of welcoming the prospect of a closer union between psychiatry and general medicine. I feel that the mutual benefits of such a relationship will improve the standards of medical practice.

I have stated that the obligations of the medical profession in relation to mental health are two in number. The first, direct, positive or preventive aspect is that of knowledge of self in an attempt to gain mental health for one's self. The second, indirect or negative phase is that of the recognition, interpretation and treatment of the various personality disorders that come to the attention of the general practitioner. A plea is made for the better understanding of attitudes and facts in mental illness so that the general practitioner can gain a more wholesome way of life for himself, as well as enabling him to care for the many personality problems that come to him for aid. We must keep in mind that the gen-

eral practitioner is on vantage ground. It is he who is intimate with the family of the patient, who constantly observes the family situations, who knows the strong and weak components of the personality of the patient, and to whom the family turns first for help. For these reasons the general practitioner is in a position to make a genuine and lasting contribution to the mental health of a community.

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FEVER OF UNDETERMINED ETIOLOGY*

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This study was undertaken as a result of observation of a number of cases followed over a long period of time in which all diagnostic studies failed to give us a positive diagnosis. The problem of long lasting unexplained fever is of great importance to physicians and patients. All internists must frequently be faced with it. In many instances the height of the fever and other changes such as leukocytosis make it apparent that there is an organic cause for the fever and the problem is to identify the cause. In other instances the fever is of low grade, it persists for months and sometimes for years without organic cause becoming evident and it is associated with various symptoms and findings suggestive of psychoneurosis so that even the possibility of a psychogenic origin of the fever has been considered.

The possibility of fever being of psychogenic origin has been advanced by numerous authors, while others believe that a type of so-called "habitual hyperthermia" exists. In 1912 Moro⁹ first spoke of a group of cases where fever was present after exertion.

Dresel⁴ states that we have to presuppose that the behavior of temperature is just as variable from person to person as blood sugar, blood pressure and other physiological constants. He believes that one is dealing with sympathetic and parasympathetic variability which is possibly from a central origin. Egger⁵ noticed vasomotor neurosis with small elevations in a psychopathic individual. Brünecke² believes that a habitual fever exists but is so rare that a given individual will rarely see it if all diagnostic

*From the Department of Internal Medicine, University of Michigan Medical School, Dr. C. C. Sturgis, Director. Read before the medical section of the Michigan State Medical Society, Detroit, September, 1938.

criteria are exhausted. In cases of this type he believes that other stigmata of constitutional inferiority are present as dermatographia, excessive sweating, and psychic symptoms suggesting neuroses. Jahn⁷ believed there were two principle theories of psychogenic fever, namely, vasomotor processes and direct influence on heat centers of the brain. He found this subfebrile state to be most prevalent in women and the prognosis was very good in the cases observed. Cawadias³ also observed cases of this type and believed a definite syndrome existed with low grade fever, emotional instability, and vasomotor disturbances. He also believed that this condition was not one of infection and more especially not tuberculosis.

In 1930 Alt and Barker¹ presented a large series of this type of cases in which they found 23 per cent developed organic disease with approximately 6 per cent each of tuberculosis and rheumatic heart disease. Kintner and Rowntree⁸ in 1934 observed a group of cases which they believed fell in a group of neurogenic or psychogenic fevers. They believed that it might be a disease "*sui generis*" which has not yet been investigated thoroughly enough. Proger and Falcon-Lesses⁶ previous to this had presented one patient on whom they had made careful observation demonstrating the existence of a fever which they believed to be related to psychic upsets. Reimann¹⁰ in 1932 presented a case of persistent fever of nineteen years' duration for which no organic disease was discovered as the cause.

We have reviewed the cases discharged from the University Hospital during the past ten years in whom the final diagnosis was fever of unexplained etiology. We have also reviewed the cases in whom the major diagnosis was psychoneurosis but who were known to have had fever of long duration. The size of the series would have been greatly increased if we had also included those who had low grade fever while under observation, the occurrence of which had not been previously known. Such cases are frequent and they seem clinically quite similar to those studied. For this study we excluded cases with fever of less than one month's duration, those whose fever subsided during observation although not diagnosed, postoperative cases with fever, and children under fourteen years of age.

After these restrictions were made there remained seventy-five cases. Of these we were able to obtain satisfactory follow-up information in fifty-one cases, some by re-examination, some by information from the local physician, and some by questionnaire.

Analysis of Material

In our series of fifty-one cases with follow-up information we found seven cases with definite septic type of fever and two cases with high fever who were later found to have had neoplasms. In these nine patients, the duration of the fever before admission ranged from two to eighteen months, averaging 8.8 months. The height of the fever was from 101° to 106° F. There were abnormal blood findings in all these cases, five having a leukocytosis, six having elevated sedimentation rate, and six having secondary anemias. The average duration of fever after discharge was four to twelve months, averaging 7.8 months. Eight patients in this group had definite localized pain which could not be adequately explained. Four complained of joint pains and a similar number had chills and fever.

Of these patients six are dead and three still living. Two developed neoplasms, two liver abscess, subphrenic abscess in one, empyema of the gall bladder in one, septicemia one, embolic nephritis one, chronic pneumonitis one. Of the two neoplastic deaths, one was a primary renal neoplasm and the other neoplastic involvement of the hip. In every case in this group, there was adequate evidence at the time of the original examination to suggest a diagnosis of either neoplasm or sepsis, but the location and type could not be determined.

A second group of patients, four in number, later developed symptoms of arthritis. The fever had been present for an average of twenty-seven months before admission. The fever ranged up to 101. There was a mild secondary anemia present in two cases. The fever persisted for three to thirty months, averaging fifteen months after discharge. Two of these patients developed migratory arthritis and two rheumatoid arthritis. Our follow-up in these patients averaged forty months. The original symptoms are of interest since only one patient had joint symptoms. Nervousness and ease of fatigue were present in three.

There were three patients in this series

who presented more severe complaints of a nervous nature such as gagging, marked ease of fatigue to the extent of incapacitating the patient and so-called "nervous breakdown" symptoms. The fever had been present from one month to ten years before admission in these cases. The height of the fever ranged from 99.8° to 100.4° F. An elevated sedimentation rate was found in one case. The fever persisted after discharge for six months to two years. The final diagnoses were schizophrenia in two cases, and one suicide.

There is a rather large group of patients with unexplained fever over one month duration which may be attributed to infection, acute or subacute. In this series there were thirteen such cases. The fever was noted for intervals ranging from one to thirty-six months, averaging seven months. The height of fever was from 101° to 103° F. In seven cases the blood was abnormal, five showing leukocytosis, four secondary anemia, and in seven an elevated sedimentation rate. The fever persisted after discharge an average of 5.5 months. The symptoms were variable, many of them directly attributable to low grade infection. There were pains in the abdomen in five, chills and fever in three, nervousness or weakness in six, and pain in the chest in two. Chest radiographs gave negative findings in all cases. In only three was a diagnosis definitely established, one having a kidney stone removed later, one having brucellosis and one having a chronic appendix. The renal stone and chronic appendix did not adequately explain their symptoms at the time of our observation. The average length of follow-up in these cases was two and one-half years. At the end of this period all these cases were well. We were forced to conclude in these patients therefore, that there was evidence of infection at the time of our observation and that it subsided spontaneously in all of them with the exception of the operated cases.

By far the largest group of cases was those running a low grade fever over longer periods of time. In this series there were twenty-two cases of this type. The fever had been present three months to thirteen years, averaging 3.8 years before admission. The temperature had never gone over 100° F. The blood findings were normal in every case. The fever persisted from two months

to ten years after discharge, averaging three years. Our follow-up information averaged 3.8 years in these cases. The symptoms found in these patients were chiefly neurasthenic in type, ten having ease of fatigue, seven chest pain, six weakness, five having effort syndrome symptoms, and four complaining of emotional upset and a like number of the fever itself. Three of these patients complained of difficulty in swallowing, suggestive of globus hystericus. Chest radiographs and all other studies by various departments were entirely negative. All these patients were well at the time of completion of this study. No disease was discovered in this group of patients at the time of our original examination nor has any developed in the period of our follow-up.

Presentation of Cases

It would appear worthwhile to analyze in detail a case or two from the last group.

A young woman, aged seventeen, was admitted to the University Hospital complaining of continuous fever and weakness of one year's duration. She had noted ease of fatigue and low grade fever, 99.8° and 99.4° on many occasions. There had been a weight gain of ten pounds. Complete examination was negative including chest radiograph. Intradermal tuberculin and brucellin skin tests were negative. The erythrocyte sedimentation rate was 0.29 millimeters per minute which is well within normal limits. The blood examination revealed no abnormalities. The urine examination was entirely negative. One year later this patient still had temperature elevation to 99.4° F. and had developed no organic disease.

A second patient, a woman, aged twenty-seven, was observed at the University Health service from 1930 to 1934 for unexplained fever. During this time her temperature ranged up to 100°. All studies at that time were negative including chest x-rays on multiple occasions. Ten months previous to our examination she had been studied at the Massachusetts General Hospital for fever of 2 months duration. She came to the University Hospital in 1935 complaining of ease of fatigue and cough. The exacerbation of symptoms had begun 2 months previously with an upper respiratory infection and since then had continued to run a low grade fever. Our studies showed negative chest x-ray, negative agglutination series, and negative physical and blood examinations. The sedimentation rate was well within normal limits. The fever had apparently been present at all times from 1930 to 1935 while the patient was in perfect health. We were forced to conclude that there was no organic basis for the fever in this case.

A third patient, a woman aged thirty-eight, was first seen in the University Hospital in 1931 complaining of "indigestion." A temperature elevation of 99.4° was noted then. All studies were negative; the final diagnosis was psychoneurosis. In 1932 she was observed at the Mayo clinic where the temperature was 99.4° and all studies were negative; they concluded that there was no disease present. In 1933 she was studied at Crile Clinic where the

temperature was recorded at 99.8° and again no diagnosis was made. In 1936 she again entered the University Hospital complaining of excessive sweating and ease of fatigue. She had been confined to bed since 1933. All of our studies were negative with the exception of the sedimentation rate, which varied from 0.52 to 1.13 millimeters per minute, definitely elevated. The temperature at this time varied from 99° up to 100°. We concluded that this patient might temporarily have a low grade infection which was subsiding at the time of our observation as evidenced by the sedimentation rate, but that the chief diagnosis was psychoneurosis. In 1938 this patient developed definite ideas of persecution and other manifestations of schizophrenia.

Discussion

In the first group of cases it would seem obvious that these patients had, for the most part, infection, type and location not determined at the time of our observation. The presence of fever over 101° in all cases, leukocytosis or secondary anemia in the majority of them, and an elevated sedimentation rate was found. These cases are apparently the type that defy diagnosis by the methods at our disposal at present, yet the diagnosis of sepsis would seem to be in order.

In the second group of four cases, we find a period of one year elapsing before a diagnosis of arthritis was made. The probability is suggested that the rheumatic state was the cause of the fever from the beginning. It is well known that rheumatic heart disease occurs in many people who have never had arthritis. Four of Alt and Barker's¹ cases of unexplained fever were subsequently found to have definite valvular heart lesions and two others developed presumptive evidence of rheumatic infection. Also many cases of clinical rheumatic fever recover and never develop evidence of a valve lesion. However, it seems certain that some of the cases of undiagnosed fever that never develop arthritis or a valve lesion have rheumatic infection. How many, must remain a matter of speculation until the etiology of rheumatic infection is positively determined and laboratory diagnosis in the active stage becomes possible.

There is a rather large group of cases in whom the infection subsides in a short time and yet no diagnosis can be established. Part of these cases undoubtedly fall into the rheumatic group. All studies such as investigations regarding foci of infections, x-rays where indicated, blood and stool cultures were carried out on these patients and yet no diagnosis could be reached. We did

not have the brucellin skin test performed on many of them but the agglutination series were done. It is known that negative agglutination tests for undulant fever do not rule out that condition but that the phagocytic index together with the brucellin skin test are of definite diagnostic value. It is unfortunate that in the majority of our cases the phagocytic index and skin test were not done. It is possible that a few of these patients may have been subclinical cases of brucellosis but we were unable to prove this diagnosis. The same is true of the tuberculin test; while chest x-rays were taken on all our cases, the tuberculin skin test was not performed. It is felt that a negative tuberculin test would definitely be of value.

The erythrocyte sedimentation rate has been found to be a rather accurate index of tissue destruction either in neoplasm or infection. It is very unusual to see a normal sedimentation rate in a chronic infection. In the group of cases with infection, the sedimentation rate was elevated in all cases in which it was done. It is our feeling that the sedimentation rate is the best index of the presence or absence of infection.

In twenty-two cases there was no objective evidence of pathology at the time of observation and none has subsequently developed over periods varying from one to ten years. In this group every apparently indicated study was carried out with the exception of the brucellin skin test and the sedimentation rate, which was not done in some, chiefly in the earlier cases. Radiographs of the chest were made in all cases on one or more occasions. Where there were any gastro-intestinal complaints a radiograph was taken and stool examination and culture were carried out. Most of the patients in this group were seen by a psychiatrist, who diagnosed psychoneurosis in the majority of them. It is of interest that, in cases where the temperature was taken in the follow-up period, fever continued in all except one case. In this case the comparatively short period of fever before and after observation, five months and two months respectively, suggests the probability of an organic cause, of which the sedimentation rate might have given evidence. The duration of fever before our observation (average 3.8 years) and its length in the follow-up (average three years) would seem to be sufficient time for any organic

cause to become evident or for fever due to most such cases, to subside. We are inclined to agree with those who believe that fever can be of psychogenic origin and to classify these patients under this diagnosis.

Although such a classification of these cases seems in retrospect quite justifiable, the problem of the individual case with low grade fever which is not known to be of very long duration is quite different. It is probably an unusual coincidence that, in this series, almost all of the cases that were ultimately considered to have an organic cause for fever had evidence of such a cause in a temperature of 101° or higher, leukocytosis, or increased sedimentation rate. It would seem, however, that a patient with fever who does not have these findings and in whom thorough diagnostic studies have been negative can be given considerable assurance. In such a case, periodic reexaminations and appropriate symptomatic treatment is indicated but it is unlikely that serious organic pathologic changes will become apparent.

Conclusions

1. Fever of unexplained origin resolves into four classes of patients:
 - (1) Those with infection, type and location not determined.
 - (2) Those with neoplasms, origin not apparent.
 - (3) Those with rheumatic infections.

(4) Those whose fever may possibly be psychogenic in origin.

2. The recognition of psychogenic fever is exceedingly difficult and such a diagnosis should be considered only after a prolonged and thorough period of observation.

3. In our opinion the sedimentation rate is a valuable diagnostic procedure in differentiating infection fevers from questionable psychogenic ones.

4. If a patient has absence of all organic findings and a normal sedimentation rate it is thought inadvisable to make a chronic invalid of the patient or to remove non-diseased organs such as appendix, tonsils, and gallbladder.

The author wishes to express his sincere appreciation to Dr. Henry Field, Jr., for the many helpful suggestions and careful guidance in preparation of this paper.

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FURTHER OBSERVATIONS ON THE DISTRIBUTION AND CONCENTRATION OF SULFANILAMIDE IN THE TISSUES OF THE BODY AFTER ENTERAL AND PARENTERAL ADMINISTRATION*

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In a previous paper¹ results on the absorption, distribution and excretion of free sulfanilamide in normal rabbits have been reported. A further study in the variation of the free and conjugated sulfanilamide content of various tissues and fluids of man and other animals showed very similar values. Very satisfactory results have been obtained with the method recommended by Marshall and his co-workers² for the quantitative determination of this drug.

The rate of absorption of sulfanilamide into the blood varies with the individual animal from day to day.¹ There is a marked variation in the ability of different animals to conjugate this drug, which can be easily

illustrated by the following example: Two adult female rabbits were injected intraperitoneally with 150 milligrams of sulfanilamide per pound of body weight. Rabbit

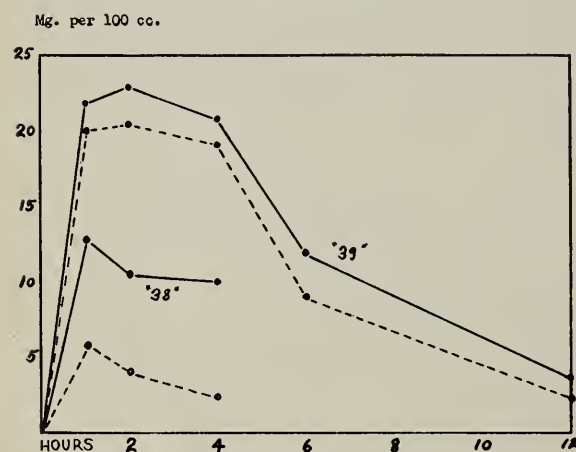
*From the Department of Pediatrics and Infectious Diseases, University of Michigan. Read before the Michigan Academy of Science, March 18, 1938.

TABLE I. DISTRIBUTION OF SULFANILAMIDE IN THE TISSUES OF NORMAL RABBITS

TISSUES, Et cetera	Rabbit 37*		Rabbit 39*	
	Free Sulfanilamide	Conjugated Sulfanilamide	Free Sulfanilamide	Conjugated Sulfanilamide
Blood	7.7 mg. %	15.2 mg. %	11.9 mg. %	7.1 mg. %
Heart	5.9	5.7	6.4	2.6
Lung	6.1	1.5	8.2	4.7
Liver	1.4	12.7	1.6	7.1
Gall Bladder	3.0	12.4	6.1	6.6
Spleen	5.3	5.9	7.7	3.8
Kidney	9.0	7.6	9.0	5.1
G. I. Muscle	3.3	3.7	7.4	0.5
G. I. Contents	3.5	3.0	9.5	2.4
C.N.S.			4.9	0
Uterus			15.9	6.0
Muscle, Etc.	4.4	11.4	6.0	6.8
Skin and Hair	18.0	6.7	7.0	2.3
Body Fluid	9.3	10.2	12.7	3.3
Urine	89.9	243.3	121.2	78.8
Stool			11.4	4.2

*Killed four hours after the intraperitoneal administration of 150 milligrams of sulfanilamide per pound of body weight.

CHART I. SULFANILAMIDE ABSORPTION IN NORMAL RABBITS



Solid Line—Total sulfanilamide.
Dotted Line—Free sulfanilamide.

38 was able to conjugate the drug quite rapidly and the concentration in the blood of conjugated sulfanilamide was more than 50 per cent of the total sulfanilamide; while rabbit 39 was unable to conjugate it very rapidly. During the first four hours the conjugated sulfanilamide in the blood of this

rabbit was not more than 10 per cent of the total (Chart 1).

An analysis of the tissues** of eleven rabbits showed a variation in their sulfanilamide concentration (Table I). The concentration of free sulfanilamide is much lower in the liver than in the other tissues; but the percentage of the conjugated drug in this organ is exceedingly high, indicating the possibility of this organ playing a very important role in its conjugation. The percentage of sulfanilamide recovered from these two rabbits was 81.2 per cent (rabbit 37) and 78.0 per cent (rabbit 39). The exact quantity administered was determined by subtracting the amount remaining in the syringe after injection and that remaining in the flask from the total determined amount. As a final precaution in account-

**The rabbits and guinea pigs used in this study were anesthetized, and bled from the heart. The organs were removed, thoroughly washed in physiological saline solution and weighed. The larger organs and tissues were ground in a clean meat grinder, to insure a uniform mixture. Small portions of this ground tissue were extracted at room temperature with 96 per cent ethyl alcohol. All tissues were extracted three times, first for forty-eight hours and filtered through No. 42 Whatman's filter paper; this residue being reextracted for twelve hours and filtered, and finally reextracted for three hours; the three filtrates being combined and a portion analyzed. The smaller organs, those weighing less than ten grams, were cut into small pieces and extracted with the same technic.

SULFANILAMIDE—ENGELFRIED

TABLE II. DISTRIBUTION OF SULFANILAMIDE IN THE TISSUES OF NORMAL GUINEA PIGS

TISSUES, Et cetera	Guinea Pig 44*		Guinea Pig 45*	
	Free Sulfanilamide	Conjugated Sulfanilamide	Free Sulfanilamide	Conjugated Sulfanilamide
Blood	7.1 mg. %	9.9 mg. %	3.7 mg. %	6.3 mg. %
Heart	5.2	1.1	1.6	5.6
Lungs	2.8	2.9	1.0	4.0
Liver	4.3	3.8	2.3	3.1
Spleen	6.1	8.1	1.5	5.5
Kidney	5.6	8.3	1.3	3.2
G. I. Muscle	5.2	5.6	2.6	4.0
G. I. Contents	12.9	4.7	6.1	10.4
C.N.S.	3.6	1.5	1.7	0.6
Muscle, etc.	5.3	3.5	2.0	3.9
Skin and Hair	3.9	4.5	1.7	3.0
Urine	102.6	114.8	74.5	141.4
Stool			8.6	4.0
Embryo			2.7	4.3

*Killed four hours after the intraperitoneal administration of 150 milligrams of sulfanilamide per pound of body weight.

ing for the total sulfanilamide recovered, the washings from the instruments, the containers and the paper used beneath these containers were saved and analyzed for any possible sulfanilamide.

The analysis of tissues of normal guinea pigs gave very similar results (Table II). However, the percentage of conjugated sulfanilamide in the liver of the guinea pig is much less than in the rabbit.

The percentage of sulfanilamide recovered from these two animals was greater than that recovered from the rabbits (88.5 per cent and 96.4 per cent). The analysis of the tissues of one autopsied woman indicates that this drug is distributed in high concentrations through the various tissues of man (Table III). The total amount of sulfanilamide administered to this patient was not known; she had received some sul-

TABLE III. DISTRIBUTION OF SULFANILAMIDE IN THE TISSUES OF MAN*
Pt. O.B. Age: 21

TISSUES, Et cetera	Total Sulfanilamide	Free Sulfanilamide	Conjugated Sulfanilamide
	mg. %	mg. %	mg. %
Blood	11.77	8.88	2.89
Heart	9.37	7.36	2.01
Lungs	6.48	5.40	1.08
Liver	7.91	5.02	2.89
Spleen	9.56	6.88	2.68
Pancreas	6.29	4.41	1.88
Kidney	9.90	5.29	4.61
Cerebrum	4.48	4.38	0.10

*Autopsy, fourteen hours after death. Diagnosis: Scarlet fever, streptococcus laryngo-tracheo-bronchitis, cervical abscess.

TABLE IV. EXCRETION OF SULFANILAMIDE IN NORMAL RABBITS

	Urine		Stool		Percentage of sulfanilamide in stool
	Total Sulfanilamide	Free Sulfanilamide	Total Sulfanilamide	Free Sulfanilamide	
Rabbit 37	354.7 mg.	85.7 mg.	3.4 mg.	0.9 mg.	0.9%
Rabbit 38	492.0	94.0	1.6	0.0	0.3%
Rabbit 39	681.9	420.3	0.16	0.11	0.1%

SULFANILAMIDE—ENGELFRIED

TABLE V. EXCRETION OF SULFANILAMIDE IN THE URINE OF MAN FIVE DAYS AFTER ADMINISTERING EIGHTY GRAMS OF THE DRUG DURING AN ELEVEN DAY PERIOD

Time after drug discontinued	Total Sulfanilamide	Free Sulfanilamide	Conjugated Sulfanilamide	% Free Sulfanilamide
0-12 hours				
12-24 hours	740 mg.	405 mg.	335 mg.	54.6%
24-36 hours	814	378	436	46.5
36-48 hours	188	74	114	39.7
48-60 hours	248	83	165	33.5
60-72 hours	89	24	65	27.5
72-84 hours	57	16	41	28.1
84-96 hours	14	5	9	35.8
96-108 hours	Trace	0	Trace	
108-120 hours	Trace	0	Trace	

Patient—J. T., male, aged forty-five years. Diagnosis: Erysipelas, with cellulitis.

fanilamide before entering the hospital. The concentration of the conjugated drug in the cerebrum was very low.

Sulfanilamide is excreted in the urine. A very small percentage may be excreted in the evacuated stools* (Table IV). When the drug was administered intraperitoneally and the animal had a stool within twenty-four hours after injection, the drug could be found in the specimen; however, if the animal was constipated and did not have a stool until sometime later the specimen was negative; the drug may have been reabsorbed from the lower intestinal tract.

Traces of sulfanilamide have been found in the urine 120 hours after the last administration of the drug (Table V). This patient received eighty grams during an eleven-day period. The eleventh day his blood concentration was 9.2 mg./100 c.c.; twenty-four hours later it was 4.9 mg./100

c.c., and at the end of forty-eight hours, 1.3 mg./100 c.c.; illustrating the gradual removal of the drug from the tissues. There was only a trace of sulfanilamide in the blood stream at the end of seventy-two hours.

Summary

1. Free and conjugated sulfanilamide may be recovered from all organs, tissues and fluids of the rabbit, guinea pig and man.

2. There is a very high percentage of conjugated sulfanilamide in the liver of normal rabbits.

3. The percentage of conjugated sulfanilamide found in blood and various tissues of these animals varies with the individual animal.

4. Sulfanilamide is eliminated from the body in the urine as free and conjugated sulfanilamide. However, a small percentage may be excreted in the stool.

5. The complete elimination of the drug from the body will require several days, depending on the amount of drug stored in the tissue and the daily urinary output.

6. The quantity of sulfanilamide recovered from the tissues and fluids of two normal adult rabbits four hours after the intraperitoneal injection of the drug was 78.0 per cent and 81.2 per cent.

7. Under the same conditions the per cent of recovery from two normal adult

*To study the excretion of the drug, the animal was placed on a heavy wire frame suspended in a large jar. The stools were caught in a smaller mesh frame suspended beneath the larger frame, and fastened at a thirty degree angle to allow the stool specimens to roll down to a pocket in the lower frame, at the side of the jar; the urine passed through the frames and was collected in the bottom of the jar. As a further precaution against chemical contamination with the urine, the stool specimens were removed as soon as possible after evacuation and immediately washed several times in physiological saline to remove any possible trace of urine. The last washing was immediately tested for sulfanilamide to insure against the possibility of the stool being contaminated with urine and giving false positive results. The stool specimens were crushed and extracted with 96 per cent alcohol. Several pieces of the wire used in the construction of the frames were allowed to remain in a known concentration of chemically pure sulfanilamide for ten days, to determine if the wire used in the construction of these frames would cause any chemical change in the drug.

guinea pigs was 88.5 per cent and 96.4 per cent.

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THE TREATMENT OF BURNS*

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S. J. SEEGER

It was in Detroit that the revival of interest in the treatment of burns had its inception. I welcome this opportunity to pay tribute to those men of your Association who were early workers in this field and whose labors have done so much for the alleviation of human suffering.

In recent years there has been a more general recognition of the requirements for the proper care of burns. Linked with this changing attitude there is an increasing appreciation of the nature of the profound systemic changes which so often complicate these injuries.

It is estimated that in the United States alone, from six to seven thousand persons yearly lose their lives as a result of burns. Of this number 45 per cent are children under five years of age, and reliable statistics evidence the fact that these accidents kill nearly as many children under fifteen years of age as all other home accidents combined. Of the non-fatal home injuries, burns constitute a large percentage. The protracted suffering of the unfortunate victims of these tragedies, the resulting disfigurement, and disability and loss of morale present important economic as well as surgical and medical considerations. Ignorance of the serious consequences of seemingly simple household accidents explains the carelessness which is the principal contributing factor in their cause. This fact offers physicians and nurses, in their daily contacts in homes, an opportunity to practice preventive medicine in a neglected field, and offers medical organizations a worthwhile project to be included in their public health activities.

Because they represent the commonest variety of burns, those produced by heat of a degree incompatible with proper functioning of the tissues have been most intensively studied. The symptoms following the infliction of a severe burn may be divided into three groups: the period of initial

shock; the period of secondary or so-called toxic burn shock; and the period of repair, which may or may not be complicated by infection. The cause of the constitutional symptoms immediately following burns has long been a matter of speculation and research, both clinical and laboratory. The term "shock" has been loosely applied in clinical medicine, and failure to define accurately conditions under discussion has given rise to confusion in the study of the clinical pathology of burns. Primary shock is neurogenic in character, and is associated with vasodilatation and a decrease in blood pressure, and a consequent reduction in cardiac output. While this syndrome should always be looked for, it is usually found only in widespread burns effecting numerous nerve endings in the skin. It is concerning the so-called secondary toxic burn shock that much controversy exists. The controversy concerns both the mechanism of its production and the time factor involved. Two schools of thought predominate regarding the fundamental character of this reaction. One maintains that at the site of the burn a toxic substance is elaborated by the action of heat on proteins. It is presumed that the absorption of this toxin gives rise to the symptoms grouped under the term "toxic burn shock." Other workers maintain that it is unnecessary to postulate the existence of a specific burn toxin, and

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substitute the theory that the symptoms can be explained by the shifting of fluids in the body.

In 1898 Bardeen reviewed the various theories on this subject. His conclusions, based on observed changes in the entire lymphatic systems of five children, who died several hours after being burned, were a substantiation of the theory that death at this stage is due to toxemia. Blalock and others have done important work which does not confirm the presence of a toxin such as earlier experimental results seemed to prove. Wilson has come to the conclusion that evidence for a specific burn toxin is inconclusive although much of it is suggestive. He maintains that proof of the toxin theory requires the demonstration and identification of the toxic substances not only in the burned area, but also in the circulating blood. Working with others he demonstrated in experimental animals the development of toxicity in the edema fluid which accumulates in a burned area, this property being gradually acquired over a period of 48 hours. Controversy exists as to the possibility of absorption of toxic material from a burned area. Wilson concluded that the toxicity of edema fluid was independent of the growth of organisms in the burned area. Underhill maintains that following a burn the permeability of the capillaries is in one direction only, namely, from the capillaries to the tissues. Recently Mason has demonstrated the absorption of potassium iodide from burned areas, the excretion of this substance being the same as in normal animals.

The confusion regarding the use of the term "toxic burn shock" is exemplified by the existing opinions concerning the time of onset of this syndrome. One author states that it occurs one hour after the infliction of a severe burn; another, that it may occur from six to fifty hours afterward, and a third states that all shock seen during the first 24 hours is primary in character. Harkins' experimental demonstration that in a burned extremity half of the fluid lost from the blood vessels to the tissues is lost within the first hour is of importance in considering the time of onset of secondary shock. This loss may be as much as 2 per cent of the body weight. The blood pressure is not as satisfactory a prognostic sign as is the hemoglobin percentage or

hematocrit reading. Some evidence has been advanced which tends to show that infection plays a rôle in the production of this early toxemia. Infection is probably not an important factor earlier than the second day in many cases. In a recent case, with extensive second degree burns, and marked toxemia on the third day, dramatic improvement was observed by us following the use of sulfanilamide. The early theories which attributed the reaction to burns as due to interference with the functioning of the skin have been generally discarded, although it is becoming apparent that our knowledge of the physiology of the skin is far from complete.

A burn is defined as an injury to tissues produced by a degree of heat incompatible with their proper functioning. These injuries are classified on various bases. Many authors have written on the general treatment of burns in the past few years. There seems to be rather widespread agreement that there is a succession of stages or periods in burns but the terms to designate them vary widely. The difference in terms is in most instances a difference in opinion as to the etiology of the various stages. None of the suggested classifications is superior to that which has been used in the past. In considering the cause of the trauma of burns the most commonly recognized grouping is into scalds produced by moist heat, and burns due to dry heat, x-ray and radium burns, electrical burns, sun burns or erythema solare, and chemical burns. In addition, burns are classified on the basis of the depth of tissue injury and the extent of skin surface involved. In this country and in Germany the so-called American classification is most generally used to indicate depth of tissue involvement. It recognizes three degrees of burning: first degree, characterized by erythema or hyperemia; second degree, associated with vesicle formation; and third degree, in which there is destruction of tissue with eschar formation. In some classifications a fourth degree is added, this being applied to the charring of tissue. Bancroft and Rogers recently suggested that the present third degree burns be divided into those which do not destroy the hair follicles and those which do, and Goldblatt has proposed dividing burns into scar-forming and nonscar-forming varieties. In attempting to apply

these latter classifications, as is also true of the classification of Dupuytren, into six degrees, one encounters the difficulty of judging the depth of tissue involvement. The depth of burns is often underestimated, even by clinicians of wide experience, and the American classification, while leaving some things to be desired, is probably as satisfactory as can be devised. Not infrequently one is asked to see a patient who has been told that a burn from which he is suffering is mild, when it is actually a third degree burn and convalescence is prolonged much beyond the anticipated time. The various degrees of burns are frequently associated, and it is a common mistake, in severe extensive burns, to overlook first degree burning about the margins of the more serious lesions.

While it has long been recognized that the extent of burns is of relatively greater importance than the degree, no practical means of estimating the extensiveness of these lesions was available until Berkow perfected a method in 1924. This method provides an accurate, simple means of determining the proportion of body surface involved and should be utilized in conjunction with the pathologic classification.

In treating burns one should proceed on a carefully studied plan. The mistake should not be made of overlooking the symptoms of shock in the enthusiasm of treating the local wound. The most important indications where shock exists are to relieve pain by adequate doses of morphine or codeine, which latter is preferable for children, to apply external heat and to administer fluids by mouth, by rectum or intravenously. Blood transfusion is a most efficacious procedure. Because of the concentration of the blood there are arguments in favor of giving blood serum alone rather than whole blood. The blood chlorides are usually low in severe burns and their replacement by the administration of sodium chloride solution intravenously should receive careful consideration. As soon as the patient's general condition permits, attention should be given the wound. Penberthy has emphasized the importance of the treatment of these wounds with the same care as one treats other surgical wounds and has outlined a very satisfactory routine technic. Pain should be relieved by morphine, codeine or avertin. The patient should be

kept warm. Debridement should be superficial and confined only to tissue which is obviously loose and destroyed, and foreign matter which may be present on the wound should be removed. Gentle cleansing of the area with soap and water is an efficacious method. When patients are first seen after emergency treatment elsewhere, greasy dressings may be removed with xylene, ether, benzine or isopropyl alcohol.

In 1925 Davidson suggested the possibility of limiting the absorption of toxic material from burned surfaces by coagulation or precipitation of injured proteins. His studies of the efficiency of various agents led to the development of the tannic acid method of treating the local wound. Because tannic acid possesses the property of precipitating protein, Davidson assumed that through its use, fixation of the burned tissues could be accomplished and the absorption of toxic material prevented. The effect of tannic acid is to produce a firm, smooth mahogany colored membrane which acts as a protective coating against chemical, bacterial, and mechanical action, as well as against sensory irritation from other sources. One striking effect of the use of tannic acid is the relief of pain, which occurs promptly and often makes further use of sedatives unnecessary. McClure recently demonstrated that evaporation from the burned surface has a negligible effect in producing dehydration after a burn. For this reason the early arguments advanced for the use of tannic acid, on the basis that it prevents water loss from the surface, cannot be given much weight.

The method of procedure as outlined by Davidson is to cover the burned area with dry sterile gauze packs which are held in place by sterile gauze bandages and this dressing is then soaked by an aqueous solution of tannic acid. In his early work Davidson used a 2.5 per cent aqueous solution of tannic acid and at times used solutions as concentrated as 5 per cent. At the end of about 24 hours the dressing is removed, at which time tanning should have occurred. Secondary infection, especially in superficial burns, is limited because of lack of favorable material for the growth of organisms. The protective area of coagulated protein may act as a scaffold for the growth of epithelium. One of the important functions of the skin is the mechanical protec-

tion it affords by cloaking the body in a complete mantle of dead material, thus keeping the organism, to some extent, isolated from its environment. The formation of a crust or scab by tannic acid temporarily restores to the body some of the biological functions of the skin destroyed, thus allowing the organism to readjust itself to altered physiological conditions during a period when the patient is often struggling with shock.

Since Davidson first described the technic, various modifications have been suggested, one of the most valuable being that the solution be sprayed over the burned area. For this purpose an atomizer or ordinary spraying apparatus is effective, the entire area being sprayed every fifteen minutes until a membrane of the desired consistency is produced. This is usually accomplished within from twelve to fifteen hours. Following the thorough tanning of the wound, the burned area may be kept uncovered if the patient is being treated under a light cradle, or covered with clean sheets or towels. No dressing is necessary to protect the wound from contamination as this is effectively accomplished by the impervious membrane. The margins of the wound should be carefully inspected several times daily and blebs which may appear should be opened and the areas painted with a mild antiseptic. In addition, the crust should be dried at intervals of about four hours with a warm air blower, the ordinary hair drying device being satisfactory for this purpose. If the burn is of second degree or of moderately severe third degree, healing will take place underneath the crust and no further dressing is necessary, the crust curling at the edges and separating from the underlying tissues as healing takes place.

When the burn is deep and extensive, epithelization will not take place and infection of varying degrees of severity is not unusual. If by the fifth day the fever does not show evidences of subsiding or if a patient who has previously had a low fever begins to develop evidences of infection, the crust should be carefully investigated. Areas which are tender or which are elevated and feel boggy should be incised, and if infection is found underneath the crust, the loose portions should be removed and treatment with wet dressings instituted. The removal of the tanned membrane is facilitated by the

application of large wet dressings of 10 per cent soda bicarbonate solution. As a rule it is not necessary to anesthetize these patients or to remove large areas of membrane at one sitting, as the piecemeal removal can be accomplished within a few days. If no evidence of infection occurs, but the tanned membrane does not separate, one should not allow the membrane to be undisturbed for a period of longer than ten days or two weeks. At the end of this time, should the membrane still be firmly attached to the wound, it should be investigated by incising through it. One may find granulation tissue underneath the crust and epithelization will be delayed unless the crust is removed and more active treatment instituted.

Several modifications of the tannic acid treatment have been proposed. The tanning process is a complicated one, and the importance of using solutions of a normal hydrogen-ion concentration has been well demonstrated. The acid solutions usually used produce a very rapid fixation of tannin on the surface and have a tendency to augment the edema of the underlying tissues. The following is a formula for making a solution of tannic acid (U.S.P.) of normal pH: Dissolve 3.975 gm. pure anhydrous sodium carbonate and 25 gm. tannic acid in water and dilute to 500 c.c. Solutions of tannic acid should always be freshly made up, and this can be done easily by keeping on hand weighed out quantities of tannic acid and of sodium carbonate in separate, tightly stoppered bottles.

The fact that the mortality rate in the early stages may be lowered means that more patients will reach the stage of the large granulating wound. The treatment of these wounds offers a challenge which is worthy of any surgeon. These patients present the problems of maintenance of body nutrition, the control of infection, the preparation of the granulating surface for the reception of skin grafts, the grafting of skin, and the prevention of contractures and ankylosis. Mastery of the technics involved in the accomplishment of these various objectives is far from being universal. The application of pressure dressings for the control of exuberant granulations is an old method which has assumed, only within recent years, a place consistent with its value. A well established principle in the treatment of large granulating wounds is

that an attempt should be made to cover them with epithelium at the earliest possible moment. The derma, or true skin, is derived from the mesoderm and is, therefore, a tissue which is not designed to serve as a source of epithelial development. While small areas of the stratum germinativum of the epidermis may remain viable in extensive burns, and at times undestroyed hair follicles may act as centers for the growth of epithelium, one should not delay too long in the hope that epithelization will be brought about in this manner. Ingrowth from the margins of the wound is to be relied on only in burns of small areas. Delay in epithelization means an increase in scar tissue and greater deformity.

The importance of attention to the details of nursing technic, looking to the comfort and well-being of the patient, cannot be over-emphasized. Encouragement of active motion, massage over unaffected areas, attention to the functions of the unburned skin, diversion to improve the morale, and extreme patience and avoidance of pain in movement or dressings are among the most important considerations. During the convalescence stage, blood transfusion is frequently a valuable adjunct. The importance of proper dietetic regulations should constantly be kept in mind. We are only beginning to learn the importance of various vitamins in diseased conditions. At the Milwaukee Children's Hospital we have begun the study of the vitamin C content of the blood in burned patients. Methods for the determination of the concentration of other vitamins which may have a part in the growth of epithelium and of supporting structures have not been developed but they offer a field for research and will undoubtedly prove to be of great clinical value in the future.

The following statement is interesting in connection with the subject of a reduction in mortality following various methods of treatment: "The local treatment of burns is a subject on which many books have been written and perhaps more numerous remedies recommended than in any branch of surgery. The success which is said to have attended very different, and even opposite, modes of treatment, shows that the authors must either be misrepresenting the facts or speaking about different matters. I prefer the latter explanation, more especially as I

find authors who have written to recommend certain methods have almost invariably spoken of burns as if they were all alike, forgetful, apparently, that the essential question in the treatment of a burn is the depth or the degree, the consequent probability of sloughing, ulceration, or mere inflammation resembling erysipelas. It is only by keeping this point steadily in view that we can hope to arrive at any rational plan for the treatment of these injuries." This statement, which is so true today, was written fifty years ago by Holmes in his *System of Surgery* and was recently quoted by Dunbar in "A Review of the Burn Cases Treated in the Glasgow Royal Infirmary During the Past Hundred Years."

Regardless of its ultimate place in the therapy of burns, Davidson's contribution served to stimulate a revival of interest in this subject. At the present time it is not possible to demonstrate by the statistical method the effect which the tannic acid method of treatment has had upon mortality. It is probable that a more general appreciation of the nature of the systemic changes has had as much to do with any apparent decrease in the death rate as has any single method of treating the local wound. The treatment of local lesions differs greatly. Willems and Kuhn report 47 different methods used in the treatment of 752 burns on the records of an insurance company. The routine use of blood transfusion and the addition of fluids and chlorides to the depleted vascular supply have been important factors in reducing the mortality rate during the first few days. In some reported series more patients survive than formerly the periods of initial and secondary shock, only to die at a later stage of exhaustion, sepsis, or pneumonia.

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BACTERIA TRAVEL BY AIR

Moist dust particles are the airships of bacteria. When bacteria alone are present in the air, they quickly dry out and die. The lucky ones are those coughed, sneezed or otherwise sprayed onto moist dust particles, upon which these bacteria ride and live so long as moisture may be present.

When bacteria were first discovered, the public was much concerned lest these new enemies fly through the air and attack like gnats or mosquitoes. Slowly this concern gave way to the belief that germs are chiefly distributed by direct contact between normal persons and persons or substances harboring the microbes. Now, fifty years later, it appears proved that some harmful bacteria may ride around in the air and that infection may be inaugurated by breathing this air.

This new development has caused a study of the bacteria in the air of work places in Detroit. Dr. Carey P. McCord, Director of the Bureau of Industrial Hygiene of the Michigan Department of Health, who supervised this investigation, states: "This study has been made to determine the numbers and types of bacteria that may be present in industrial work places. The results show that the air of workrooms with regard to numbers and kinds of germs present, are no worse than schools, offices and hospital wards." Dr. McCord claims that the real danger of acquiring bacterial diseases in work places still is through direct contact. "Our investigation proves that the average industrial worker does not spend a work day of seven or eight hours in a heavily germ laden atmosphere."

The number of bacteria riding in the air on dust particles depends primarily upon the extent of the worker congestion in the work place, upon the effectiveness of general ventilation, the humidity and temperature of the air, together with the amount of activity going on in the workroom. Dr. McCord states that "Overcrowding of workers in factories directly invites the spread of respiratory diseases and in order to prevent overcrowding every worker should be provided at least 25 square feet of floor space."

All bacteria gaily sailing around on their dusty airships should be grounded. A small number of bacteria in the air are comparatively unimportant in a workroom, but when scores of workers in congested areas launch, by coughing and sneezing, millions of bacteria into the air—then look out for the coming epidemic.

STAFF CONFERENCE

DEPARTMENT OF INTERNAL MEDICINE

UNIVERSITY OF MICHIGAN

Case History

A. H., a white farmer boy, aged sixteen, was re-admitted to the University Hospital on October 10, 1938, because of an upper respiratory infection and drowsiness. He was first seen here on October 18, 1934, because of ease of fatigue, a large appetite, polyuria and polydipsia, at which time it was found that he had diabetes mellitus. His diabetes was well controlled by means of dietary regulation and the administration of insulin three times daily.

acetone odor to the breath. There was injection of the nasal mucous membranes and throat. The thyroid was easily palpable with slight symmetrical enlargement. The lung fields were clear and the heart was not abnormal. His abdomen was distended and tenderness was generalized, but there were no palpable visceral enlargements. The remainder of the examination was not abnormal.

Laboratory Findings.—The urine on admission showed: specific gravity 1.022, albumin ++, sugar

Treatment in Hospital:

10-10-38	Urine		Insulin	Blood	Blood	Remarks
	Sugar	Acetone	(regular)	CO ₂	Sugar	
1:00 P.M.	4+	4+	40 U	13 vol. %	422 Mg. %	Gastric lavage with 4% sodium bicarbonate. 100 c.c. of orange juice left in stomach. Intravenous saline (physiologic) started.
3:15 P.M.	4+	4+	40 U			I.V. 1/6 molar-sodium lactate started.
5:30 P.M.	4+	4+	30 U			200 c.c. orange juice
8:00 P.M.	4+	4+	20 U			200 c.c. orange juice
9:00 P.M.	4+	4+	....			.....
10:00 P.M.	4+	2+	20 U			200 c.c. orange juice
12:00 P.M.	3+	2+	20 U			200 c.c. orange juice
10-11-38						
2:00 A.M.	4+	2+	20 U			200 c.c. orange juice
4:00 A.M.	3+	2+	20 U			200 c.c. orange juice
6:00 A.M.	3+	1+	....			.....
8:00 A.M.	1+	1+	20 U	54 vol. %	133 Mg. %	200 c.c. orange juice plus 20 gm. glucose.

His course was entirely satisfactory after discharge. The carbohydrate content of his diet and the insulin dosage were increased when he was seen on subsequent visits. In August, 1937, his diet was increased to 200 gm. A.G. (available glucose) and a single morning dose of protamine insulin was substituted for the regular insulin. Minor changes were made and when last seen in the Diabetic Clinic in September, 1938, he was receiving a diet of 300 gm. A.G., 3,600 calories and a single dose of protamine insulin 86 units (of U 80) each morning at 7:30. He was considered to be well regulated at this time.

Ten days prior to his return he developed a head cold, a cough, headache, malaise, drowsiness, and a stiff neck. There was a return of the polyuria and polydipsia; his diet was discontinued on the evening of October 9, 1938, and his last dose of insulin, 86 units of protamine, was given at 7:30 A.M. on October 9. He developed abdominal pain and was brought to the hospital shortly after noon on October 10, 1938.

The patient's brother died at 14 years of diabetes mellitus. There was no other familial history of the disease nor other factors of significance. His past history was non-contributory except as noted above.

Physical Examination.—On admission his temperature was 97.3° F., pulse 117 per minute, respirations 24 per minute, and the blood pressure 145/75. Examination revealed a semi-stuporous boy who exhibited typical Kussmaul breathing, a flushed face, warm dry skin, cherry red lips, and a strong

++++, with 6-10 coarse granular casts per low power field, but no red or white blood cells. The plasma carbon dioxide combining power was 13 volumes per cent and the blood sugar 422 mg. per 100 c.c. at 1:00 P. M., October 10. Blood Studies: R.B.C. 4,650,000; Hb. 97 per cent (Sahli), W.B.C. 9,150, and there was an essentially normal differential count.

Totals: Two hundred thirty units of regular insulin were given subcutaneously. 1,500 c.c. of physiological saline and 1,920 c.c. of 1/6 molar sodium lactate were injected intravenously, by the drip method, over a period of four hours. His improvement was rapid and his subsequent course was uneventful. He was placed on a diet of 250 gm. of carbohydrate, 100 gm. protein, and 3,600 calories and controlled on regular insulin.

Discussion

DR. JULIAN TOBIAS: In addition to the history noted above, I would like to point out that during his course of treatment his blood pressure rose from 146/75 to 200/90. The next day, however, it had returned to the admission level.

DR. CYRUS C. STURGIS: Dr. Newburgh, will you discuss this case?

DR. LOUIS H. NEWBURGH: The patient presents two or three factors that are characteristic of dia-

betic coma. The abdominal pain, for instance, has frequently been mistaken for some condition that required immediate surgical intervention. I believe that now most surgeons realize the situation, but over and over again patients have been rushed to a hospital because of a serious generalized disturbance localized in the abdomen, and have undergone an operation which, of course, makes the situation very much more difficult to manage. The abnormalities in the urine—albumin and casts—are characteristic. These have been known to occur for a very long time. Years ago a great deal of fuss was made about that. They are evidently due to a mild toxic effect on the renal epithelium. Sometimes this is very great. Certainly patients who have a moderate acidosis for a long time—that is, a degree of acidosis which does not cause coma but which is sufficient to incapacitate them—may develop severe renal injury. Renal damage may indicate, in this sense, a kidney which is so seriously disturbed as to cause retention of all the excretory substances, including the metabolic products such as the sulphates and phosphates, as well as the ketone bodies. These in turn tie up base so that when the patient comes in to the hospital in coma, there is often not only an organic but also an inorganic acidosis. Depletion of base is not merely due to retention of these factors but it is also caused by the prolonged excretion of the ketone bodies; the patient develops a very low CO_2 combining power, Kussmaul breathing and unconsciousness. Complete relief of the organic acidosis may be accomplished, as is evidenced by the absence of ketone bodies in the urine, but the patient may continue to remain in coma. He still has all the symptoms of acidosis, and it is important to realize that he is now suffering from an inorganic acidosis, which is the result of severe depletion of base. If recognized, this can be corrected almost immediately by the administration of sodium bicarbonate. But if overlooked, a fatal outcome is almost certain. This is not very common, and not true in this patient. Undoubtedly some of the fatalities occurring in diabetic acidosis are attributable to this condition.

There is a patient now on Dr. Smith's ward who is perfectly familiar with diabetic acidosis, since she has had many bouts of it. She was admitted this time with a typical episode, which was perhaps somewhat more severe than usual. The striking feature is that she has a fever of 105°F. and has a leukocytosis of 21,000 cells per cubic millimeter. Her CO_2 combining power is 22 vol. per cent. She is recovering, and we are doing nothing about the fever and leukocytosis, even though she has abdominal pain, which practically every patient with severe acidosis experiences. It is especially interesting to realize that she has this very high fever, very marked leukocytosis as features of acidosis. She is quite sure that she has had this sort of response over and over again. There is nothing unusual about this as patients often have fever with acidosis. I can't explain the fever or the leukocytosis.

DR. STURGIS: Dr. Conn, do you have anything to add?

DR. JEROME CONN: I might add one or two points with regard to therapy. I would like to outline briefly what should be done for a patient who is admitted to the ward in diabetic coma. One should realize that there are two essential abnormalities from which the patient is suffering. The first is lack of oxidation of glucose. This can be taken care of by means of insulin. The second is dehydration, which is treated by giving fluids intravenously, either as 5 per cent glucose or as physiological saline. The intravenous infusion should be started immediately on admission. Insulin should be given as soon as one is positive that the patient is suffering from diabetic coma. The initial dose of insulin should be 30 to 40 units. Larger doses are not necessary. Intravenous insulin is not necessary. Continue with small doses, after the initial one, that is, 20 units every two to three hours, obtaining urine specimens before each succeeding dose of insulin. Thus one can tell when to begin diminishing the dose of insulin. Catheterize for urine specimens if necessary.

These two procedures, combating dehydration and organic acidosis by means of insulin and fluids, will take care of 90 per cent of the patients in diabetic coma.

The other 10 per cent are suffering from depletion of base and should, in addition to the usual treatment, be treated with sodium bicarbonate or sodium lactate. It does not matter which is used as long as the condition is recognized as depletion of base. This is an important point because there are many schools in this country that feel that sodium therapy is not indicated. We feel that in this 10 per cent it is of utmost importance, and may be life-saving to the patient.

Some may wonder why this patient was given glucose by mouth in the form of orange juice. About a year ago I had an idea that it might be of value to give glucose by mouth. The reason for such an assumption is this. Patients in diabetic coma are suffering from severe depletion of their glycogen stores. It seems that when the glycogen stores of the liver are replaced by means of insulin and carbohydrate, oxidation proceeds rapidly. Insulin alone is often unsuccessful in promoting rapid oxidation when the liver glycogen is low. If the liver glycogen can be raised rapidly, we should expect a more rapid recovery. When glucose is absorbed from the gastrointestinal tract, it reaches the liver in a high concentration by means of the portal vein and the glycogen stores of the liver are replaced much more rapidly than when glucose is given intravenously and arrives at the liver via the hepatic and mesenteric arteries.

We had an opportunity to study three cases of diabetic coma whose treatment consisted of the usual regime to which was added 150 to 200 grams of glucose by stomach tube. We were surprised to find in these cases that the CO_2 combining power

rose from the region of 10 to 15 volumes per cent to 50 volumes per cent within a four hour period. This is a much more rapid recovery than we usually observe with the routine treatment. For this reason we wish to continue to study this observation.

DR. STURGIS: It is difficult for the younger men to appreciate, to the fullest extent, what the recovery of this patient means. Now it is expected that a patient with impending coma or coma will recover within a relatively short time after treatment has been instituted. Before 1922, *i.e.*, before the use of insulin, when a patient went into diabetic coma he almost invariably died, though this did not include those in impending coma.

DR. RAPHAEL ISAACS: In connection with the possible causes of leukocytosis in diabetes, Gottsegen and Wittman noted that the injection of ketone bodies, such as beta hydroxybutyric acid, into animals caused a marked and definite leukocytosis. This may be a suggestion as to the cause of leukocytosis in diabetic patients in whom the ketone bodies are present in appreciable amounts.

DR. HERMAN RIECKER: I do not understand why this patient had an albuminuria and hypertension. Is this frequently observed? How many cases of diabetic coma show a hypertension.

DR. NEWBURGH: Renal damage is responsible for the albuminuria. I do not know what caused the hypertension. One more point. The patient has been receiving 86 units of protamine insulin in a single dose. One must realize, of course, that this form of insulin acts at the same rate throughout the 24 hours. During the 8 to 10 hours of the day when all the food is taken, glycosuria may be seen. Toward the end of the 24 hours, if no food is added and with the system continuously active, hypoglycemia may be seen. If glycosuria is to be avoided during that early part of the day, a too low blood sugar will result at the other end, that is, during the last of the 24 hour period.

A single dose of protamine insulin to avoid hypoglycemia in the early morning and at the same time prevent glycosuria throughout the day is our objective. It is questionable whether it is good or bad practice to give patients with severe diabetes a single large dose of protamine insulin in the morning, and to provide enough carbohydrate during the day to supply a sufficient amount in the early morning so that there will not be hypoglycemia; but as an inevitable part of such a practice, there will be glycosuria during the 8 to 10 hours of the day when food is given. Is glycosuria of that type harmful or not? That is a question for which I have no answer.

DR. HENRY FIELD, JR.: I expressed myself fifteen years ago, and I still feel the same way—in favor of using sodium bicarbonate in severe acidosis at the beginning of treatment rather than waiting for the indication of inorganic acidosis. I have a fear of waiting because I have seen a number of fatalities

from uncomplicated diabetic acidosis in patients whose blood CO_2 had been restored to normal. I believe the point is that it had not been restored soon enough. It takes a certain amount of time for insulin to cause enough metabolism of ketones to improve the acidosis significantly. A severe acidosis is damaging to tissues. If continued long enough there is a time at which the injury becomes irreparable. Unless the acidosis is promptly relieved by alkalis to the point where it is no longer damaging, injury may be caused before insulin has had time to relieve the acidosis sufficiently. I favor the intravenous route of administering alkalis because in diabetic acidosis there is no certainty that anything given by mouth will pass the pylorus. It may all be vomited after a few hours. Intravenous administration of sodium bicarbonate is safe if a properly prepared solution is available. In individuals of ordinary size, 20 to 30 grams is enough to relieve the acidosis beyond the danger point.

DR. STURGIS: Dr. Tobias, what was your reason for using sodium lactate in this patient?

DR. TOBIAS: Sodium lactate has been recommended because of the slow liberation of the sodium ion in contrast to sodium bicarbonate, where the sodium is very rapidly split off from the bicarbonate radical. Supposedly, the danger of the possible production of alkalosis is much less with sodium lactate than with sodium bicarbonate.

DR. CONN: In the 10 per cent of diabetic coma cases where inorganic acidosis is important, sodium bicarbonate should be given because one needs something that brings up the pH quickly.

DR. BERT BULLINGTON: The use of sodium lactate is reputed to be harmless and it can be given safely in most instances. I have seen, however, three instances where it was given intravenously to patients with severe diabetic coma who were in profound shock. These individuals did not respond but developed hyperpyrexia and had a fatal termination. I wonder if this reaction is due to the specific dynamic action of the drug itself or to some other factor? Because of this I also believe it is probably inadvisable to give large doses of sodium lactate to individuals with circulatory collapse.

DR. CONN: The cause of the hyperpyrexia is not known. I would hazard a guess that changes in the pH of the cells of the thermal center in the mid-brain upset the normal temperature regulating mechanism just as they upset the respiratory center and cause the well known Kussmaul respirations.

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FEBRUARY, 1939

*"Every man owes some of his time to the up-
 building of the profession to which he belongs."*

—THEODORE ROOSEVELT.

EDITORIAL

GROUP MEDICAL SERVICE AND GROUP HOSPITAL INSURANCE

THE special meeting of the House of Delegates held in Detroit on January 8 is probably one of the most momentous and important meetings of this deliberative body in the history of Michigan medicine. Two major items came up for consideration, namely, (1) group hospital care and (2) group medical service for those whose incomes are \$1,500 a year or less. Group hospital service is beyond the experimental stage. It has been widely adopted throughout the United States and Canada. We have commented from time to time on group hospital care, taking the viewpoint that it is to the great advantage of both patient and

physician, and particularly the former, who, by the payment of comparatively small annual stipend, is assured hospital care in the case of a catastrophic illness, or any sickness that may call for confinement in a hospital. The financial advantage to the doctor consists in the fact that, with the hospital charges out of the way, the patient is in a much better position to meet his obligation to his physician. The principle was endorsed by the House of Delegates. The future will consist in its application and no doubt certain changes will be necessary from time to time to meet unforeseen circumstances.

The adoption of group medical care is an innovation that may not have been anticipated by many members of the profession. The council of the society, however, have been impressed with its necessity and also the necessity of leadership on the part of doctors who render this service.

In the plan of medical service, what is termed a unit system was recommended. For a certain specified sum to cover a specified period of time, the employed member will be entitled to a definite number of units of service. He may not require to make use of any of these units of service during the period of insurance. Should he, however, require a major operation, a definite number of units will be appropriated to this type of service. The house and office visits will, of course, call for much fewer number of units. To be more specific, if each family is entitled to a thousand units a year, a major operation for any member of the family might call for from 150 to 200 units, which would leave a balance of 850 or 800 to take care of any other illness in the family. The doctor's fee for the performance of a major operation would correspond to the number of units set apart for the operation. Or for the term units, we might use the term dollars. Thus under such a system, the insurance would take care of the cost of medical care. Group hospital and group medical insurance are made possible by the fact that large employed groups will pay into a fund, but those requiring medical and surgical care will probably be no greater in number than those requiring it under the individualistic system that has prevailed.

The reader will realize that any method of practice that is largely untried in its

beginning will require certain modifications to meet unforeseen exigencies that may arise. It is sufficient, however, to record that the House of Delegates has also endorsed the principle of group medical service. Of course, this does not take care of the indigent sick whose illness will require to be met, either at the taxpayers' expense or through certain charity as in the past. Group medical service and group hospital service can of necessity apply only to those who have earning power and are in a position to meet the annual cost, however small.

The upper limit of income has been placed at \$1,500. A change in this limitation of income may be advisable, depending upon the economic condition of the future. Group medical service is not socialized or state medicine. It is simply the sick and accident (non-industrial) insurance principle made available to low income groups at a price they can afford to pay. The provident in the higher income brackets have met and will continue to meet catastrophic or other illness by paying premiums into the old established commercial sick and accident insurance companies. Under group medical service the entire cost will be met by the groups themselves.

AND YET WE ARE UNDER CENSURE

EVERY member of every county medical society in the United States is a member or fellow of the American Medical Association or is eligible to become a member.

The *New York Times* of January 7 contained the following interesting news item from the Surgeon-General Thomas Parran of the United States Public Health Service. Public health in the United States, we are told, has advanced more in the last two years than ever before within a comparable period. To quote: "The death rate fell from 11.3 a thousand in 1936 to 10.9 in 1937, and the first six months of 1938, fell to 10.8, against 11.8 in that period of 1937. Infant mortality fell from 57.1 a thousand live births in 1936 to 54.4 in 1937 and only forty-six mothers in 10,000 died in childbirth, against fifty-three in 1936. Diseases showing a mortality decline in 1937 were tuberculosis, typhoid, scarlet fever, diphtheria, malaria, pellagra, nephritis, and puerperal fever. Smallpox cases rose by

4,000 to a 11,673 total in 1937, the most since 1931, but they were generally of a mild, non-virulent type, with relatively few deaths."

All this, however, has been accomplished under the traditional methods of medical practice. The Public Health Departments, either city, state or national, would be helpless were it not for the coöperation of the practicing physician who is the soldier at the outposts of illness, if we may use a mixed metaphor. The medical profession is aware that the highest achievement has not yet been attained in the eradication of disease but the fight is still on. Dr. Parran deplores what he considers a fact that 40 million people in the United States, the lower economic third of the population, are unable to provide themselves with medical care in serious illness, and he claims that the country is 360,000 hospital beds short.

The medical profession of Michigan cannot be accused of unwillingness to coöperate in the matter of medical care. The final act of the special meeting of the House of Delegates of the Michigan State Medical Society, reported elsewhere, is a foreward movement in securing medical attention to the percentage of the forty million who belong to the state of Michigan and who come within the lower income brackets.

Up to the present time, the American Medical Association and its constituent state medical societies have put forth every effort possible in the way of improving the medical training of its members as well as advancing the standards of the medical practice in the United States. The Association has been foremost in the matter of standardization of hospitals, of insuring purity in drugs, and of fostering the highest ideals in education; and the result has been that described in the Surgeon-General's report.

HONESTY

THIS is the title of a new book by a doctor, namely, Dr. Richard C. Cabot, of Boston. The subject is very interesting, one on which everyone has an opinion, but it is like the weather, very few write about it. Dr. Cabot says in the book that he has come across only one other work with the same title. In evaluating the importance of honesty as the king of virtues and the life-saver

of men, Dr. Cabot goes on to say that abolish deceit and there would be no forgery, bribery, stealing, embezzlement, burglary, plagiarizing, sabotage, arson or bombing, cheating, by students, politicians or servants, false weights or measures, adulteration, swindling, counterfeiting, grafts, malfeasance or "rackets," false advertising or quackery, blackmailing, tax-evasion, flattery and hypocrisy, backbiting, "propaganda," spying and betrayal, treason or conspiracy, trapping and ambushing, smuggling, carrying of concealed weapons, kidnapping, few murders or poisonings, no illegal sales of liquor and drugs, adultery, and bigamy, few sex crimes or vices of any sort and no perjury. It would seem that Dr. Cabot has included in this list about all the sinister acts of which mankind might be guilty.

The book goes into the subject of honesty very thoroughly and discusses it in connection with war and crime, government, industry, science, education, medicine, religion, and a number of other departments of human activity. While the entire book is intriguing, Dr. Cabot's discussion of truthfulness in medicine is of particular interest. He puts it rather boldly that the truth should be told the patient at all times without any attempts at equivocation. In perusing his chapter, the thought comes to one as to whether a doctor knows the truth in its entirety and that he might be assuming a great deal in pronouncing a patient's doom that might not be warranted. In thirty years of practice, the editor has never heard a doctor tell a patient he had only a brief time to live; although how many of us have been confronted by the patient who said that his doctor gave him up to die several years before. It seems not in a doctor's interest to pronounce anyone's doom. If he is a defeatist, he should not be practicing medicine. It is heartless to destroy a patient's last hope.

The subject of honesty is a very large one and we can imagine that a tactless person who claimed to be one hundred per cent honest might find himself enjoying his own society unmolested by anyone else. He spends a social evening at the home of a friend when the hostess calls upon her daughter to entertain him with musical selections. The playing might be indifferent, but if the guest is asked how he likes it and replies, "Rotten!" he may be tell-

ing the exact truth, but if he cultivates this social or anti-social attitude, he will find himself like Barney Google in the old song, keeping company with his horse. Of course, Dr. Cabot would not be so abrupt, yet he would not say anything to encourage where there was no promise.

Dr. Cabot represents one extreme, Dale Carnegie the other. By this we do not mean that one represents pure and unadulterated truth and the other the opposite. As much as has been said in derision of Dale Carnegie, we have a furtive feeling that his principles put into practice will go a long way towards greasing the social gears and placing sand on the rails.

We commend Dr. Cabot's book, however, as it contains a great deal of food for thought. It is a serious discussion of a great subject.

A Fine Decision

(*The Detroit Free Press*)

At a meeting Sunday in Detroit the House of Delegates of the Michigan State Medical Association adopted the principle of group hospital service and group medical service for persons with incomes of less than \$1,500 a year.

The details of its plan to bring medical and hospital care within easier reach of more than 2,000,000 people have yet to be worked out.

The Legislature will be asked to permit the organization of Hospital and Medical Security, Inc., as a nonprofit corporation empowered to sell health insurance to eligible groups.

A tentative explanation of what it is believed this will mean to the public needing hospitalization has been given out. Supporters of the plan think that sixty cents a month for a single subscriber, or \$1.25 for a family, would provide care in a ward, and that semi-private care could be had for 75 cents to \$1.75 a month.

These payments would entitle a subscriber to 21 days of hospital care in the first year, to 23 days in the second year, and so on up to 30 days for the fifth and subsequent years.

General nursing service, operating and delivery rooms as often as necessary, surgical dressings and plaster casts would be included.

A somewhat similar plan is contemplated for persons who need medical care but do not have to go to a hospital.

And it is hoped that in time indigent and semi-indigent groups may be able to get similar service through arrangements between Hospital and Medical Security and their communities.

The Michigan State Medical Association shows by its action that its members are imbued with the finest tradition of their profession, which is to save life and relieve suffering without regard to the race, creed or financial condition of those who need their services.

A good many people in Michigan, who have gone without adequate medical and hospital attention because they were too proud to accept what they could not pay for, will welcome this tangible plan for relief from one of their greatest worries.

President's Page

IT IS still too early to convey much information on the details of the epoch-making action of the House of Delegates on January 8, 1939. The action of the House of Delegates has been extremely favorably received by the general public and, regardless of what you personally think, public feeling molds actions.

Profound, and we fear detrimental, changes in the care of the sick citizen, are planned by bureaucratic governmental agencies. Organized medicine resents the aged and sick being used as "guinea pigs" for governmental socialized experimentation.

Our Society is a truly democratic organization with a membership of over 4,000 "rugged individualists." It cannot be expected that action of the House of Delegates will meet with unanimous approval. Good sportsmanship and an interest in the future of medical service are depended upon to assure a wholehearted acquiescence in the final decision.

*"It ain't the individual, nor the army as a whole,
But the everlastin' teamwork of every bloomin' soul."*

Yours truly,



President, Michigan State Medical Society

DO NOT FORGET YOUR POSTGRADUATE PROGRAM FOR 1939

"A few physicians increase in knowledge from within and grow from their own doing. These are the innate investigators. The rank and file require outside help to grow and to progress. Books, meetings, contacts, discussions, teachers, are our armamentarium for progress. Like the 'spring tonic' of past days, all of us need some of this medicine at least annually, better if it comes more frequently. A large majority of physicians know their need and seek treatment."—HENRY A. CHRISTIAN, M.D.

POSTGRADUATE PROGRAM FOR 1939

Ann Arbor and Detroit

<i>Courses</i>		<i>All dates inclusive</i>
Anatomy	Wednesdays, 1:00-10:00 p. m.	February 15—May 31
Electrocardiographic Diagnosis		April 3-8
Urology		April 10, 11 and 12
Proctology		April 13, 14 and 15
Gynecology, Obstetrics and Gynecological Pathology		April 10-14
Ophthalmology and Otolaryngology		April 20-26
The Care of the Diabetic		May 8, 9 and 10
Pediatrics		June 5, 6 and 7
General Medicine		June 19-23
Pathology: Special pathology of neoplasms		June 26-July 7
Pathology of the female genito-urinary organs		July 10-21
Special pathology of the eye		July 24-August 4
Special pathology of the ear, nose and throat		August 7-18
Laboratory Technic		June 26-August 4
Clinical Courses—Summer Session		June 26-August 4
Roentgenology		June 26-August 4
Roentgenology		October 30-Nov. 4
Neuropsychiatry (Administrators' and Specialists' Course)		April 3 and 4
Neuropsychiatry		November 1, 2 and 3

EXTRAMURAL POSTGRADUATE COURSE

Beginning April 3 and continuing throughout week of April 24

Ann Arbor	Lansing-Jackson
Battle Creek-Kalamazoo	Saginaw
Flint	Traverse City-Manistee-
Grand Rapids	Cadillac-Petoskey

Further information will be given in the postgraduate bulletin and in subsequent numbers of THE JOURNAL of the State Medical Society.

DEPARTMENT OF POSTGRADUATE MEDICINE

University Hospital, Ann Arbor, Michigan

Department of Economics

L. FERNALD FOSTER, M.D., Secretary

MICHIGAN ANSWERS THE CHALLENGE

MEDICAL care for all the people of Michigan at a price they can afford to pay has been the objective of the Michigan State Medical Society for a number of years. Surveys over the past five years have provided sufficient data to permit of a definite set of proposals to effect the desired objective.

In reviewing the various groups of our social order we find three major groups—the economically comfortable, those of modest income and the medically indigent. The first group has always been able to purchase the necessities of life, including medical care, to the extent of its desires. The medically indigent group is the direct responsibility of government. This leaves only one group—those of modest income—for whom health services should be provided at a price it can afford to pay. This provision is necessary only on occasions of catastrophic illness. To this group the Michigan State Medical Society now extends health services on a voluntary insurance basis, a basis covering hospitalization and professional services.

Voluntary group hospitalization is not a new proposal. It is in vogue in a number of states and communities and has served to solve only part of the problem. Voluntary group medical service is a new venture, but one that rounds out a complete service for a needy group of our citizenry.

If a change is indicated in the administration of our health needs we should analyze carefully the results of our present democratic American manner of health service. We should compare our present results with those of other countries from which there is a tendency to take example. We point with pride to our medical research and scientific advancement. We cherish our life expectancy span and our mortality rates. We view with extreme satisfaction the incidence of preventable diseases in this country. Under our present system we have a minimum of malingering

and a low per diem rate of hospitalization as compared with our European neighbors with federalized forms of health administration.

When we discuss with the laity the question of health services it is obvious that the quality of American medical care is taken for granted and does not carry a true interest appeal. When, however, we translate medical care in terms of taxes the laity immediately manifests a true interest—an interest developed through recent years of tax consciousness.

If those insidious forces which clamor for a departure from the American way of rendering health services are sincere in seeking a solution for the only needy group—those of modest income; those whose incomes fall in the low brackets—then Michigan has the answer. This answer does not involve a departure from our democratic principle of free choice of physician; neither does it invoke the development of socialistic, bureaucratic control; it does not involve huge sums of public funds; nor will it act as a deterrent force upon the great scientific advancement of American Medicine—an advancement second to none in the world. It preserves all that is desirable in our present methods and effectually renders to all our people the finest quality of medical service at a price they can afford to pay. The answer to the challenge is embodied in the views of the Michigan State Medical Society:

1. The economically comfortable individual should purchase his health services to the extent of his wants.
2. The medically indigent individual should be the responsibility of government.
3. The individual of modest income should avail himself of low cost voluntary group hospitalization and voluntary group medical service.

Let's do it in the democratic American way.

GROUP HOSPITALIZATION AND GROUP HEALTH SERVICE

THE House of Delegates of the Michigan State Medical Society in special session approved the principles of voluntary group hospitalization and voluntary group medical service. It authorized The Council to proceed with development of detailed plans consistent with the adopted principles.

Group Hospitalization, now in vogue in several states, allows a subscriber to purchase a given number of days of hospital services (exclusive of any professional services) for a moderate premium payment.

Group Medical Service, an entirely new procedure, enables a subscriber to purchase units of medical service, such units to include all the services rendered by Doctors of Medicine in all the specialties.

The action of the House of Delegates calls upon The Council to develop its plans in coöperation with the Michigan Hospital Association, labor, industry, agriculture, religious and educational groups, community councils and other interested groups. It is recognized as a joint responsibility of both the community and the medical profession to bring adequate hospital and medical services within the reach of the low-income group of the community.

The medical profession is asked to recognize the importance of the adoption of the broad basic principles and to bear in mind that the development of the minute details is of lesser importance. In the development of details the interests of the patient and of the medical profession will at all times be guarded. Since The Council of the Michigan State Medical Society represents in a democratic manner the forty-two hundred members of the State Society, the latter's interests and views will be reflected in all deliberations.

WOULD IT BE TIMELY?

THE *Detroit Free Press* asked the above pertinent and important question in the following editorial, published on January 25, 1939:

"The President has sent the report of his special committee of public health and welfare to Congress for study and action.

"The report recommends, among other things, a Federal-State public health program to cost \$850,000,000 a year.

"Admitting, as it must, that good health is a personal and national asset, Congress will have to decide whether, taking into account the tremendous burden of debt Mr. Roosevelt has imposed on the country for other purposes, spending \$850,000,000 a year for the improvement of public health is either financially expedient or necessary, at this time.

"The United States is the healthiest country of comparable size and population in the world.

"A few weeks ago the annual report of the Surgeon General showed that the American people have steadily improved in health, without the assistance of any such expensive program of public aid.

"The health of the people is much better than the health of business, which has been bled white by governmental extravagance and waste.

"With the medical profession constantly striving to improve the public health, and achieving remarkable results, would it be wise to spend billions of public funds for health measures, at a time when the country needs nothing else so much as relief from debt and taxes?

"Would it not be wiser to stop spending and help business and employment back to their feet and thus enable the people to pay for their own medical care out of the incomes now denied them by economic stagnation and chronic unemployment?

"A thorough study of the problem which Mr. Roosevelt has tossed into the lap of Congress involves finding answers to those questions."

COUNCIL AND COMMITTEE MEETINGS

1. Wednesday, December 28, 1938—Maternal Health Committee—Hotel Statler, Detroit—12:30 p. m.
2. Friday, January 5, 1939—Advisory Committee on Syphilis Control—Hotel Statler, Detroit—
3. Saturday, January 7, 1939—Committee on Distribution of Medical Care—Hotel Statler, Detroit—2:00 p. m.
4. Saturday, January 7, 1939—The Council—Hotel Statler, Detroit, 6:30 p. m.
5. Sunday, January 8, 1939—The Council—Hotel Statler, Detroit—8:00 p. m.
6. Sunday, January 15, 1939—Legislative Committee—Hotel Olds, Lansing—4:00 p. m.
7. Thursday, January 19, 1939—Mental Hygiene Committee—Eloise Hospital, Eloise—6:00 p. m.
8. Sunday, January 22, 1939—Advisory Committee to Woman's Auxiliary—Bancroft House, Saginaw—11:00 a. m.
9. Sunday, January 22, 1939—Preventive Medicine Committee—Hotel Statler, Detroit—2:00 p. m.
10. Sunday, January 22, 1939—Legislative Committee—Hotel Olds, Lansing—2:00 p. m.
11. Sunday, January 22, 1939—Committee on Scientific Work—Hotel Olds, Lansing—3:00 p. m.
12. Saturday and Sunday, January 28-29, 1939—Mid-winter Meeting of The Council—Hotel Statler, Detroit.
13. Monday, February 6, 1939—Cancer Committee—Woman's League Bldg., Ann Arbor—6:30 p. m.

MICHIGAN STATE MEDICAL SOCIETY

Proceedings of House of Delegates

Special Session

Statler Hotel, Detroit, Michigan

January 8, 1939

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ROLL CALL

COUNTY	DELEGATE	SESSION Morn- ing	After- noon
1. Allegan	E. T. Brunson, M.D.	x	x
2. Alpena-Alcona-Presque Isle	F. J. O'Donnell, M.D.	x	x
3. Barry	Robert B. Harkness, M.D.	x	x
4. Bay-Arenac-Iosco-Gladwin	R. C. Perkins, M.D.	x	x
5. Berrien			
6. Branch			
7. Calhoun	Harvey Hansen, M.D.	x	x
	A. T. Hafford, M.D.	x	x
8. Cass	K. C. Pierce, M.D.	x	x
9. Chippewa-Mackinac	F. W. Mertaugh, M.D.	x	x
10. Clinton			
11. Delta-Schoolcraft			
12. Dickinson-Iron	E. M. Libby, M.D.	x	x
13. Eaton	Paul Engle, M.D.	x	x
14. Genesee	Frank E. Reeder, M.D.	x	x
	Donald R. Braise, M.D.	x	x
	Robert Scott, M.D.	x	x
15. Gogebic			
16. Grand Traverse-Leelanau-Benzie			
17. Gratiot-Isabella-Clare	Myron C. Becker, M.D.	x	x
18. Hillsdale	L. W. Day, M.D.	x	x
19. Houghton-Baraga			
20. Keweenaw	G. M. Waldie, M.D.	x	x
21. Huron-Sanilac			
22. Ingham	R. L. Finch, M.D.	x	x
	C. F. DeVries, M.D.	x	x
	H. W. Wiley, M.D.	x	x
22. Ionia-Montcalm	R. R. Whitten, M.D.	x	x
23. Jackson	Philip A. Riley, M.D.	x	x
	James J. O'Meara, M.D.	x	x
24. Kalamazoo-Van Buren	R. J. Hubbell, M.D.	x	x
	Fred M. Doyle, M.D.	x	x
	I. W. Brown, M.D.	x	x
25. Kent	A. V. Wenger, M.D.	x	x
	C. F. Snapp, M.D.	x	x
	P. W. Kniskern, M.D.	x	x
	G. H. Southwick, M.D.	x	x
	W. R. Torgerson, M.D.	x	x
	Herbert M. Best, M.D.	x	x
26. Lapeer	A. W. Chase, M.D.	x	x
27. Lenawee	H. Huntington, M.D.	x	x
28. Livingston			
29. Luce			
30. Macomb	R. F. Salot, M.D.	x	x

31. Manistee	E. A. Oakes, M.D.	x	x
32. Marquette-Alger	Vivian Vandeventer, M.D.	x	x
33. Mason			
34. Mecosta-Osceola-Lake	G. H. Yeo, M.D.	x	x
35. Menominee			
36. Midland			
37. Monroe	D. C. Denman, M.D.	x	x
38. Muskegon	E. N. D'Alcorn, M.D.	x	x
	L. E. Holly, M.D.	x	x
39. Newaygo			
40. Northern Michigan	G. B. Saltonstall, M.D.	x	x
41. Oakland	Otto O. Beck, M.D.	x	x
	Palmer E. Sutton, M.D.	x	x
	Zea Aschenbrenner, M.D.	x	x
42. Oceana			
43. O.M.C.O.R.O.	C. R. Keyport, M.D.	x	x
44. Ontonagon			
45. Ottawa	A. E. Stickley, M.D.	x	x
46. Saginaw	Clarence E. Toshach, M.D.	x	x
	L. C. Harvie, M.D.	x	x
47. Shiawassee	A. L. Arnold, Jr., M.D.	x	x
48. St. Clair	A. L. Callery, M.D.	x	x
49. St. Joseph			
50. Tuscola	T. E. Hoffman, M.D.	x	x
51. Washtenaw	John A. Wessinger, M.D.	x	x
	Dean W. Myers, M.D.	x	x
	L. J. Johnson, M.D.	x	x
	T. K. Gruber, M.D.	x	x
	J. M. Robb, M.D.	x	x
	C. E. Umphrey, M.D.	x	x
	R. H. Pino, M.D.	x	x
	E. D. Spalding, M.D.	x	x
	R. M. McKean, M.D.	x	x
	R. L. Novy, M.D.	x	x
	A. E. Catherwood, M.D.	x	x
	W. D. Barrett, M.D.	x	x
	G. C. Penberthy, M.D.	x	x
	R. C. Jamieson, M.D.	x	x
	C. E. Simpson, M.D.	x	x
	C. S. Kennedy, M.D.	x	x
	H. F. Dibble, M.D.	x	x
	A. P. Biddle, M.D.	x	x
	C. E. Dutchess, M.D.	x	x
	Warren B. Cooksey, M.D.	x	x
	Wm. J. Stapleton, Jr., M.D.	x	x
	P. L. Ledwidge, M.D.	x	x
	C. E. Lemmon, M.D.	x	x
	C. K. Hasley, M.D.	x	x
	J. A. Hookey, M.D.	x	x
	C. F. Brunk, M.D.	x	x
	S. W. Insley, M.D.	x	x
	L. J. Bailey, M.D.	x	x
	R. L. Laird, M.D.	x	x
	Allan McDonald, M.D.	x	x
	C. F. Vale, M.D.	x	x
	H. L. Clark, M.D.	x	x
	F. W. Hartman, M.D.	x	x
	C. D. Benson, M.D.	x	x
	G. L. McClellan, M.D.	x	x
	S. E. Gould, M.D.	x	x
	L. O. Geib, M.D.	x	x
	Wm. P. Woodworth, M.D.	x	x
53. Wexford	W. Joe Smith, M.D.	x	x

SUNDAY MORNING SESSION

January 8, 1939

A special meeting of the House of Delegates of the Michigan State Medical Society was held at the Statler Hotel, Detroit, Michigan, at ten thirty-five o'clock, Dr. Philip A. Riley, the Speaker, presiding.

THE SPEAKER: The Special Session of the Michigan State Medical Society House of Delegates will now come to order.

Mr. Secretary, will you read the call for the Special Session?

The Call for the Special Session was read by the Secretary, Dr. L. Fernald Foster.

THE SPEAKER: Gentlemen, you have heard the call for the Special Session.

Dr. Ledwidge, as Chairman of the Credentials Committee, will you give us a report?

DR. P. L. LEDWIDGE (Wayne County): I have here the credentials of sixty-eight delegates who have been certified by the Credentials Committee.

I move that they be accepted as the official roll call.

THE SPEAKER: There has been a motion made that sixty-eight constitute the roll call. Is there a second to that motion?

The motion was seconded by Dr. Andrew P. Biddle of Wayne County and carried.

The Credentials Committee presented several special cases; the House of Delegates voted on the eligibility of these delegates, in accordance with the By-laws.

THE SPEAKER: The Reference Committees which were appointed last September will hold over for this Special Session.

Vice Speaker Martin H. Hoffman took the chair.

THE VICE SPEAKER: We will now hear the address of the Speaker of the House, Dr. Philip A. Riley.

SPEAKER'S ADDRESS

Dr. Riley read the address of the Speaker.

Mr. President, President-Elect, Councillors and members of the House of Delegates:

This is my first occasion to wish you all a Happy New Year and I do so from the bottom of my heart. I feel that during the year of 1939 many of our problems will be brought to a conclusion. During the past year, in spite of bewilderment, confusion of ideas and chaos, great strides forward have been made.

At our September meeting of last year, the Committee on the Distribution of Medical Care brought in a summary of a tremendous amount of work. Certain principles of this summary were approved and certified for further study. You voted at that time to have this committee bring in a report of further work done at a special meeting in the near future. We are here today for purpose.

If you remember, at our meeting in September, we were a bit confused as to what course we should follow, and as to what action we should take. The medical profession of the entire country were in the same boat with us. The A.M.A. had called a special meeting of its House of Delegates and it was less than three months after the time of the regular meeting. A conference had been called in Washington to help solve these problems. Hospital insurance had taken on a sudden growth and words of praise were all that could be heard for the idea. Various organizations were clamoring for a plan for the prepayment of medical care. These organizations ranged from CIO Unions to the committee of 400.

Since our meeting in September, many changes have taken place. I think probably the most significant change has effected the doctors themselves. We have lost the jitters, or, in other words, we have regained confidence in ourselves and our own ability on how to run our own business. We have awakened to the fact that we know more about our own business than do the synthetic secretaries attached to political band wagons.

Since our meeting in September, hospital insurance has taken on further growth to the point where today it is as much a part of our natural life as fire and theft insurance. It protects the individual against catastrophe the same as fire insurance does.

Since our meeting in September, we have had a national election with the conservative element com-

ing rapidly to the front and in the last few weeks the economic index of the country has greatly improved. While long overdue, nevertheless the improvement has come. The economic situation of the country is the most vital factor of all when we talk about medical economics. The people of this country are inherently honest and will avail themselves of adequate medical care when economic conditions provide the men with jobs.

During the past year several commercial companies have entered the field of sickness indemnity. The price of the policies vary from four cents a day to seven cents a day. Some of these companies will pay the patient in cash while others will pay the doctor. It remains to be seen which is the best plan. Various State Medical Societies, such as California, Wisconsin and New York have entered the field of sickness insurance. I am not familiar with the details of their plans but no doubt they have their good and bad points.

Following the recommendation of the House of Delegates in September our own committee on the Distribution of Medical Care, headed by Dr. Pino, have done a tremendous amount of work along this line. We are here today to hear their report. We have several courses left open to us. We can adopt it as it stands or we can adopt it with amendments to it. We can flatly reject it or we can approve part of it and send it back to the committee for further study. We can approve it and send it to our membership for a referendum vote, and, lastly, we can accept the report and put it on the shelf. I sincerely hope that this last procedure is not resorted to. To do such a thing would be a great miscarriage of effort and go down in our records as another "Love's Labor Lost."

(Applause)

THE VICE SPEAKER: The Speaker's Address will be referred to the Reference Committee on Officers' Reports.

DR. FRANK E. REEDER (Genesee County): I rise at this occasion to ask if it would not be proper, as was done in the House of Delegates at Chicago, to permit all members of the profession to sit in at this meeting. We have been approached by members of the profession who are not delegates who desire to listen in, and I think they are entitled to do so. Whether it requires any action or not, I do not know, but it would seem to me it is the right thing, gentlemen, for us to do.

THE VICE SPEAKER: The Chair would rule that is a matter for the House's consideration and would entertain a motion to that effect.

DR. ANDREW P. BIDDLE (Wayne County): I make that motion.

The motion was seconded and carried.

THE VICE SPEAKER: The gentlemen and ladies, if there be any, may be seated for the session.

THE VICE SPEAKER: The next order of business is the address of your President, Dr. Henry A. Luce. (Applause)

PRESIDENT'S ADDRESS

PRESIDENT LUCE: Mr. Vice Speaker, Members of the House of Delegates, and Guests:

At the onset, your president desires to express his tribute—and in this he feels that he is expressing the feelings of the entire organization—to the members of the committee, to those who have not officially been members of the committee, to the officers of the society, to the executive secretary, and to all their assistants for the efforts that have been expended and the sacrifices that have been made in the preparation of subject matter to be presented to this group.

I also have a pardonable pride in the attitudes and

motivations of the entire group here assembled. You have come here today at your own expense, together with the coincident loss of income entailed with your absence from your fields of labor. For what purpose? Not a selfish motive, not an economic one, but for the purpose of making a contribution to the health of the community. Even more than that, there are involved other implications that affect our political integrity. They involve our much cherished American democracy. Shall individualism, self-responsibility and free enterprise be maintained, or shall compulsory regulation and regimentation be instituted? Shall the determination of medical care for the low income group be a matter of governmental regulation or shall it become a function of private communities?

Your president at this point wishes to express his keen appreciation and that of the Michigan State Medical Society for the portion of the recent inaugural address of Governor Fitzgerald: "Plans have been advanced for socialized medicine calling for designated physicians to attend the needy. I do not favor this system. I believe persons in need should not be denied the right of selection of their own physicians or dentists simply because they are in distress. I propose that such persons be allowed to select their own physicians, just as you and I, and that the cost be met from the welfare health fund. In other words, I believe the patient-physician relationship should be preserved." (Applause)

The word "compulsory" has no place in democratic America. The term "compulsory" brings the threat of Communism and Nazism with their train of sabotage, treason, cruelty and the indescribable squalor of concentration camps.

You, as a group today, are not attacking your own problem or that of your patients, solely. As before stated, the problem is far greater and broader and it is sincerely believed that this broad view will be taken and met with characteristic fortitude and sound judgment.

The ability to act wisely and constructively in difficult situations is the essence, not only of mental soundness, but also of statesmanship and leadership.

Groups act not unlike individuals when faced with difficult situations. The well-balanced, efficient person attempts to solve his problems in a frank, straightforward manner. He first tries to understand the facts and then faces them squarely as they are, no matter how disagreeable or foreboding they may be. Individuals dodge reality by evading responsibilities, minimizing difficulties, by self-justification through shifting of blame, and by procrastination and rationalization.

It is sincerely hoped and expected that this group, made up of intelligent, mature adults, will frankly and squarely face reality, and as a result will make decisions in which we will all abide with inexorable determination, safe in the knowledge that such acts are honest, sincere and motivated by an unselfish wish to make a distinct contribution to our social and political welfare.

I know of no other group in which patriotism, high ideals and the sense of responsibility are present to the degree represented by our organization. To no other group would I leave the responsibility with less fear of error and un-American activities. "Strength to your arms and wisdom to your judgment."

At this time I should like to take a few minutes of your time to discuss a matter which I consider is well worth your attention.

Recent attacks on the medical profession of the United States have endeavored to create the impression that organized medicine is divided against itself and that many physicians are in revolt. The statement is untrue.

Organized medicine speaks through its House of Delegates, a democratically chosen representative body. At the very first meeting in which the American Medical Association was founded, differences of opinion as to methods of procedure arose and were openly discussed. The democracy of that first meeting of the American Medical Association has become a tradition. The representatives of the 111,000 members of the Association are always free to discuss in open meeting their opinions on the various phases of the problems which constantly confront the profession. It is significant that the membership of the Association is today the greatest in its history and that few if any of those said to be in revolt have resigned their membership.

At times differences of opinion may have given the impression that the doctors cannot agree among themselves. I leave it to you gentlemen and to a grateful public to decide whether organized medicine, comprising, as it does, each one of you individually as well as our county and state societies, could have reached the high plane of organized perfection and prestige had we not been able in the long run to discuss and settle our individual differences of opinion.

We have been assailed by the Government of the United States with an indictment that we constitute a monopoly and that our actions through our delegated authorities in the American Medical Association have violated the laws of this country as they apply to interstate commerce and restraint of trade.

The policies of the American Medical Association have been formulated by the membership of that Association. Had that membership at any time during the years I have served as a member of the national House of Delegates disagreed with those policies which I as a delegate have had a part in forming, I cannot make myself believe that I would have been returned to the national House term after term. I have sat in committee meetings with delegates from other states and have differed with them at times on what method should be pursued to the best interests of the American people and American medicine, but never has there come forth from any of these committee meetings, much less passed by the House of Delegates, any policy which I could not conscientiously support.

The policies of the American Medical Association are the policies of the Michigan State Medical Society and of every county society in the state of Michigan and in the United States. For the grand jury at Washington to indict five officials of our national organization may be legally correct. I have not a legal training, but my medical experience teaches me to treat the etiological factor at the point of origin. The five officials of the American Medical Association have interpreted the actions of the House of Delegates of the AMA. The State Societies have indorsed the actions of the national body. 111,000 physicians constitute the State Societies. At the very least from a medical and ethical point of view, if the five officials of the AMA have done anything wrong, the Government should have officially indicted me and every other member of organized medicine.

I, for one, would like to have the American people know that I personally as a physician feel that I have been indicted by the United States Government; that the impugned reflection on the integrity of the American Medical Association is considered by me as a reflection upon myself. I believe that the rest of you feel much the same.

I should like to have every citizen of the United States know that his family physician has been indicted. Can you make that mother whose child's life has been saved think that her doctor is a knave? Can the millions of people that twenty-five years

ago would have died of typhoid, diphtheria, diabetes, cholera infantum and other diseases, who walk the streets to day and enjoy life's bounty, be made to say that American medicine deserves indictment? The blind have been made to see, the lame to walk, and the ill restored to health under our American system that never has defaulted an obligation nor proved unfaithful to trust.

I would like to have the American people know that the medical profession of this country stands united in opposition to this indictment and the attacks made on its integrity. We always have presented a united front, not only in the battle for the best public health service for the people, but in the constant seeking for better ways of providing medical service and care. That this united front exists is proved by the great attainments made by American medicine since the American Medical Association was created in 1847 for the initial purpose of improving medical education. Today our medical schools are the outstanding ones in the world. Our research centers are leading the world into new avenues of medical knowledge. Today the medical world comes to America for its postgraduate studies rather than American physicians going to foreign countries for further studies, as was true a century ago. A united profession has attained all of these things, not for themselves but for the people, and a united profession will continue to oppose all that is inimical to the welfare of the people and fight for those things which best serve the people's interests.

(Applause)

THE VICE SPEAKER: The President's address will be referred to the Reference Committee on Officers' Reports.

The Vice Speaker will now turn the meeting back to the Speaker.

The Speaker resumed the chair.

THE SPEAKER: We will now hear a word from our President-Elect, Dr. B. R. Corbus. (Applause)

PRESIDENT-ELECT'S GREETINGS

Mr. Speaker, Members of the House of Delegates: I have no message to bring you. You have heard a very stimulating and important message from the President. I do feel that we have before us today perhaps the most important subject, coming at the most important time, of any meeting that we have perhaps ever had. I know you will meet the problem with your usual good judgment.

I have tremendous faith in the House of Delegates. I have had long experience in judging the temper of the House of Delegates. They never yet have failed to approach a subject with sanity and judgment. It has been surprising in times gone by, when the House has met with important policies to be decided and when the Council has been concerned, because of their greater opportunities to face the problems which were to come up they have had the opportunity of further study.

So I know that we are going to meet this problem in the same way, in a determined way and in a manner which will be for the safety of the medical profession of Michigan and this country. I thank you. (Applause)

THE SPEAKER: Thank you, Dr. Corbus.

We shall now hear the report of the Council by Dr. Paul R. Urmston, Chairman of the Council.

REPORT OF THE COUNCIL

DR. PAUL R. URMSTON: Mr. Speaker and Members of the House of Delegates: The Council submits the report that you have been looking for anxiously and awaiting since September.

There has been some criticism of your officers that we did not call the meeting sooner, but if you

knew the tremendous amount of work of your Committee on Distribution of Medical Care and the time spent in evolving any plan to be submitted to you today, you would appreciate the time and deliberation required. There should be no criticism by any member of the medical profession of the State of Michigan for the work done by your committees. The committees are representatives of you, and for the interest of the medical profession and the public it takes time and many deliberations to evolve a plan of the importance presented to you today.

Group Hospital Service and Group Medical Care Plans

At the Seventy-third Annual Meeting of the Michigan State Medical Society, held in Detroit last September, the House of Delegates received a considerable amount of material from the Committee on Distribution of Medical Care covering the subjects of (a) Group Hospitalization; and (b) Group Medical Care Plans. The House of Delegates Reference Committee presented the following report on the Committee's activities:

"We approve the principle of voluntary hospital insurance, providing that hospital insurance be so defined that it does not include professional services by a doctor of medicine. We also recognize the merits of certain principles in voluntary health insurance, and we therefore urge that Recommendation IV of the 'General Program of Medical Care' as defined by the American Medical Association, September 17, be adopted in principle by the Michigan State Medical Society. We further recommend that the Committee on Distribution of Medical Care continue with more detailed studies of an acceptable insurance program—these studies to be presented to a special meeting of the House of Delegates in the near future."

In the past few months, the members of The Council have become thoroughly convinced that the membership of the society generally, throughout the state, desires to put into active operation a statewide system for the prepayment of medical care and hospital service through the pooling of funds therefor. The public desire is evidenced numerous ways—the growth of so-called "non-profit hospital associations," the Governor's message to the Legislature urging group hospitalization, the pressure of community groups and certain employers, the statements of labor leaders, and the unanimous endorsement by farm organizations, many of whom are now only awaiting the action which the House of Delegates of the Michigan State Medical Society will take at this meeting to determine their own course.

In the problem of bringing adequate hospital service and medical care within the reach of every citizen of the low-income group of the community, the responsibility lies primarily with the community itself and secondarily with the medical profession and allied health groups. Some have mistakenly supposed that the doctors of medicine had to assume the whole burden, furnish the plan, raise the money and take all the risks, put on a sales campaign and do all the work, medical and financial, in the public interest.

By enlisting the community in such an enterprise, the greatest possible barrier against governmental interference would be built. Therefore, the Committee on Distribution of Medical Care presents to us a statewide community health service founded on the development of lesser community groups built around a board of directors chosen by interested groups including industry, labor, agriculture, medicine, dentistry, hospitals, education, religious organizations and other interested groups for the purpose of furnishing non-profit voluntary hospital service

and non-profit voluntary medical care based on the principles laid down in the plans developed by the Committee on Distribution of Medical Care.

The purposes of this meeting are to consider and to act upon the proposals contained in the notice of the meeting. The undertaking is a large one. The report and exhibits of the Committee on Distribution of Medical Care were reviewed by The Council at a meeting held last night; these are presented to you in full for your consideration.

The projected plan of group medical care contains several matters to which The Council directs your particular attention: (1) the plan is open to all licensed doctors of medicine in the state who agree to the rules and regulations; (2) the subscribers have complete freedom of choice; (3) the control of the administration and policy of medical service is to be vested in the medical profession; (4) the medical services are to be paid out of available pooled funds on a unit system. Such a system affords freedom of action, insures the success of the plan and if dues are not placed at a proper figure they can be rectified at any time. The situation is entirely different from that where the doctors agree to work on a unit system with dues fixed by an intervening agency over which the doctors have *no control*. Moreover, use of the unit system for subscribers permits the placing of a "ceiling" on the maximum cost of medical care per person; the true insurance principle—definite rates and definite benefits—is preserved under this system.

So far as possible, district administration will be put on an autonomous basis. In the discussion the Council suggests that discussion here should be centered upon *fundamentals* and not upon details. In the deliberations of this body it will be impossible to work out or decide the many details in the inauguration of a plan designed for state-wide coverage eventually. The type of plan that the profession desires, and its fundamental tenets, we respectfully suggest should form the topics of your deliberations. Details must be entrusted to representatives from various geographical areas and differing conditions of medical practice.

Recommendation: The Council respectfully recommends that this House of Delegates, after due consideration and discussion, instruct The Council to take the necessary actions to create and put into operation an organization or organizations containing the essential provisions embodied in the tentative drafts as presented by The Committee on Distribution of Medical Care.

Respectfully submitted,
THE COUNCIL, M.S.M.S.
By P. R. Urmston, M.D.
Chairman

ATTEST:

L. Fernald Foster, M.D.
Secretary

DR. URMSTON: Mr. Speaker, I now ask you to call upon the Chairman of the Committee on Distribution of Medical Care to present these plans. Thank you.

THE SPEAKER: The Chairman's address will be referred to the Committee on Council Reports.

The big moment has now arrived. Will Dr. Pino come forward? (Applause)

DR. RALPH H. PINO (Wayne County): Mr. Speaker and Gentlemen of the House of Delegates: He shouldn't have said what he said exactly because it makes the fall harder, if the fall comes.

I want to read to you in its entirety the Report of the Committee on the Distribution of Medical Care before we take up any comments from the House of Delegates, in order that we may bring to you some of the thoughts that have accumulated

around the definite proposals that we shall make.

It would be unnecessary, I believe, to do any more today than simply to accept one of three proposals, had you had the opportunity of sitting with us through many sessions in arriving at our conclusions. Had that been possible, you would be able to see what we see when we stack up, so to speak, one thought against another. We have one definite opinion as to what should be done, and then someone else brings up an opposing opinion and we get together in the middle of the road somewhere. I want to say to you that we have come together in the middle of the road as near as we believe it humanly possible to do in thinking of the interests primarily of the people, and then of the medical profession and all groups concerned.

Dr. Pino read the Report of the Committee on Distribution of Medical Care to The Council of the Michigan State Medical Society, during the reading of which he made interpolations. (Noted in smaller type.)

REPORT OF THE COMMITTEE ON DISTRIBUTION OF MEDICAL CARE

Group Hospitalization is insurance, but it is not a non-profit form of private insurance, rather it is a non-governmental form of public insurance. The voluntary movement of non-profit public insurance is in direct competition with the government, rather than with the private insurance carrier. To make certain the success, proper administration, and general availability of non-profit, voluntary hospital insurance, a special enabling act covering this type of organization has been felt requisite by most of the states, and a number of such acts have been passed by state legislatures.

Your Committee began its work on the assumption that both group hospitalization and group medical care should be offered to the public *as one service*, in the best interests of the people. Therefore, your Committee developed

1. A proposed Enabling Act, covering both hospital service and medical care (Exhibit A).

One primary motive in thinking that through was this: You recall that we were told that any plan of hospital insurance that should come forward must eliminate all medical services. In order, therefore, to provide the hospital insurance and the necessary medical insurance—that is, x-ray, laboratory and anesthesia—it would be necessary to set up alongside of the hospital insurance some medical insurance in order that we might compete with any group who would set up the other. Therefore, the necessity of an enabling act covering both hospital service and medical care.

2. The proposed by-laws of the corporation, permitted under the Enabling Act, offering both hospital service and medical care (Exhibit B).

3. Articles of Incorporation (Exhibit C).

In other words, we have gone through the setting up of practically all the necessary details leading up to that. I would suggest that you not try to look at that while we are going over this outline.

Hospital insurance—a form of public service—must be made available to the largest part of the population. Therefore, the rate should be as low as is consistent with sound actuarial experience.

In the contract with the subscriber, the rates and benefits, as studied by your committee, could be briefed as follows:

Ward Plan (Groups Only)

Rates

\$.60 a month, subscriber (employed).

1.25 a month, subscriber and one or more dependents (wife, or husband and all unmarried children under 21 years, living at home).

- 1.00 registration fee per family.
 - .60 for each additional adult dependent living with subscriber and totally dependent on subscriber for financial support.
- Semi-Private Plan (Groups Only)*

Rates

- \$.75 a month, subscriber (employed).
- 1.50 a month, subscriber and spouse.
- 1.75 a month, subscriber and dependent family, under 21 years, unmarried and living at home.
- 1.00 registration fee per family.
- .75 for each additional adult dependent living with subscriber and totally dependent on subscriber for financial support.

Let us not fall down over any detail of that kind. There is sufficient precedence upon which to go. We know what this will do by present experience. We know by the experience here mentioned that it is possible to do more than is outlined in what is offered. We know that it creates a reserve. We know that we want that reserve created not for the purpose of increasing the cost of the hospital bed but of giving increased benefits to the patient. I think you can read through and around that statement.

Benefits

Maximum of 21 days' care the first year; 23 days the second year; 25 the third year; 27 the fourth year; 30 the fifth and subsequent years.

The reason for increasing those days as the years go by is to offer a premium to the individual who remains in.

Complete, beginning the first day.

In other words, no waiting period.

General nursing service.

Operating and Delivery Rooms as often as necessary, ordinary medications, surgical dressings, ordinary plaster casts.

Meals and dietetic service.

\$3.00 (ward plan) or \$4.00 (semi-private plan) a day towards purchase of private room (with consent of physician).

Ambulance service in metropolitan area when ordered by physician.

\$3.50 to \$5.00 a day to out-of-state hospitals for emergency and accident care.

Maternity coverage after ten months (the patient paying \$2.00 per day towards each day's care—to cover cost of two persons in hospital).

Again let us not be disturbed about points of that kind. That can be entirely taken out of there if it seems the thing to do. It is put in as a buffer.

Twenty-five per cent of all hospital costs for 120 additional days.

Age limit for new subscribers—65 years.

Anyone coming in at sixty-five, however, could continue to any age as long as the policy does not lapse.

Rates to Hospitals

\$4.50 per day (ward plan)—subject to individual agreements with hospital.

\$6.00 per day (semi-private)—subject to individual agreements with hospital.

Now you will notice a difference in the amount paid here. Here is \$4.50 and \$6, above \$3.50 and \$5, and there is a definite explanation for those things. Again those things can be adjusted. Let us not spend a great deal of time over that right now. It can be brought up by the Reference Committee if they so wish. There is a logical explanation for it and we would be glad to take it up with you.

Your Committee on the Distribution of Medical Care developed in detail the proposed contract with the subscriber, based on the above essentials.

Within recent months, a number of lay-controlled corporations (other than insurance carriers) have been formed under the Insurance Code or the Corporation Code of the State of Michigan, to offer group hospitalization. These organizations have tended to stimulate a great public interest and desire for a group hospitalization plan sponsored by (a) the medical profession; (b) the hospitals; and (c) the public. To supply this ready market, certain hospital executives have within the last few weeks formed a group hospitalization corporation under the Corporation and Securities Commission—not the Insurance Department; this plan was developed independently of the medical profession and of the public. Still believing that the best interests of the public would be served by a true non-profit, voluntary organization sponsored jointly by the medical profession, the hospitals and the public, which had as its firm foundation an enabling act, representatives of the medical profession invited representatives of this recently-formed corporation to meet together on January 3, for the purpose of ironing out the major difficulty—certain diagnostic services—and meeting on a common ground.

On every occasion and in every way, we have gone along in an attempt to work together with every group who have tried to do something along this line. The problem remained unsolved after a six-hour discussion at our last meeting with that group.

One item of business taken up at this meeting was the "proposed model law to enable the formation of non-profit hospital service associations under the supervision of the various state departments of insurance" which was drafted by the Committee on Hospital Service and Council on Hospital Care Insurance of the American Hospital Association. A copy of this proposed model law is presented to you today as . . . (Exhibit D). No provision for group medical care is included in this proposal.

Now we were able to come to some conclusion with that group of hospitals who are setting up that particular plan as far as x-ray is concerned, and I have letters to the point that as far as the State Roentgenological Society is concerned they are satisfied with that arrangement.

However, we have arrived at no conclusion as far as anesthesia and laboratory services are concerned. Where does that place us in the possibility of coöperating with that group of hospitals who are trying to set that up? Simply here, that we cannot go along with them until those other things are ironed out, according to the conclusion reached at the Annual Meeting of the State Society. And in order that it might not at some other point take up a good deal of time, it occurs to us that any organization setting up a type of hospital insurance should be formed through the Insurance Department rather than through some other department of the state set-up.

On the matter of hospital insurance, there are three questions that we wish you to decide.

Questions of the Committee

1. Do you wish to instruct your Committee on Distribution of Medical Care to continue efforts with the Michigan Hospital Association and the representatives of labor, industry, agriculture, religious and educational organizations, community councils, and other interested groups, in an attempt to obtain a non-profit group hospitalization plan sponsored jointly by the medical profession, the hospitals and the public?

or

2. Do you wish to instruct your Committee to develop a non-profit group hospitalization corporation, owned and controlled by the State Society, which indemnifies the patient in cash, and not in service benefits, said corporation to be a mutual or coöperative organization under the Insurance Code?

or

3. Do you wish to instruct your Committee to as-

simulate or affiliate with one or more of the lay-controlled group hospitalization corporations (other than insurance carriers), which are already doing business?

Now let us come back to Question No. 1.

If you could have been at the various conferences with us and have heard the opposing opinions as to whether or not the Michigan State Medical Society should enter into the insurance business, or whether or not we should combine with others, you would have found it pretty much condensed in the conclusion being that we should do what is emphasized in No. 1.

In the first place, we have learned that the public feels that the practice of medicine is very much their business. It is an established psychological set-up in the minds of the American people within the last few years. It seems, therefore, an appropriate thing, particularly in these low-income groups, that we should unite with industry (certainly they have stakes in it), that we should unite with labor, that we should unite with agriculture, that we should unite with educational interests, that we should unite with community chest interests, if we are going to be able to go to the legislature with an enabling act that will not be shot at as something that is purely from the medical profession.

But we say and we have maintained that these groups are getting medical care. I want to refer to one of these groups particularly and that is the Grange, representing agriculture. In meeting with one of the most influential members of the Grange, not alone in Michigan but in the United States, a few days ago, I said, "But remember this, there is no country where medical care is so nearly adequate as in the United States."

This individual, whose influence compares favorably with the influence of any doctor in the United States, said to me, "You do not know what the condition of medical care is among the farmers of the United States, when you consider the cost as compared with what the cost used to be." Making a personal reference, this individual said, "When you lived on a farm" (and I was discussing this from experience) "there were not transfusions, there were not pneumonia typings to be done." I was surprised at the extent of knowledge that these people have of what is required in medical care. He went into the question of milk production, where they have to be so careful now in seeing to it that they do not have undulant fever. "Here are these things and if we do not have some way, whereby we can put \$2 a month of \$3 or whatever it is in to pay for them, we are going to the United States Government and are going to ask that it be gotten otherwise."

I want to tell you that the sympathetic attitude of that individual was not antagonistic at all. They just had this to say, "All right, we understand your problems, but we must have it."

That brings us to this: Shall we not go to agriculture and to labor and to industry and say, "Come on with us. Let us do this thing together?" If at this time we do that, there is very great likelihood that they will leave the management of it to us. We find there is very great interest on the part of important industrialists and others to want to come in with us to guide us from their angle and to let us do this as we think it ought to be done.

"No. 2. Do you wish to instruct your Committee to develop a non-profit group hospitalization corporation, owned and controlled by the State Society?" There is a possibility, but on that day when the House of Delegates of this Society instructs this Society to do that independently and on their own, the President of the Michigan State Medical Society becomes the president of an insurance company and he has great loads on his shoulders at the present time in relationship to medical care in the State of Michigan. On that day the Executive Committee of your Council becomes the Board of Directors, so to speak, of an insurance company.

We still believe it can be done if it is necessary, but is it necessary for us to assume that when these others want to come in and help? If we do it ourselves, believe me, gentlemen, they will be sitting back and saying, "Let's see what they can do. Let's see how it comes out."

"No. 3. Do you wish to instruct your Committee to assimilate or affiliate with one or more of the lay-controlled group hospitalization corporations other than insurance carriers, which are already doing business?"

I want to add in there not alone "other than insurance carriers" because the problem comes up that the insurance carriers are the companies such as the Metropolitan, Prudential, and the larger insurance companies. Those who are not insurance carriers are such concerns as come up from time to time and try to write this kind of insurance.

We have those in the group constituting the Committee on the Distribution of Medical Care who were definitely imbued with the fact that we should turn this matter entirely over to the insurance companies, and very honestly, men who have made a deep study of it. One of these men we had appointed to the Committee because of that knowledge. The Executive Committee asked us to appoint a subcommittee to look into the possibilities of doing just that thing. I am trying to give you the argument.

Wouldn't it seem logical to say here, We want to practice medicine. We don't want the insurance companies to

practice medicine. Therefore, they don't want us to go into the insurance business. That seemed very logical indeed.

So this subcommittee had many conferences with men who represented not alone the individual insurance company but those who represented the association to which these companies belonged. This subcommittee was a strong committee. I was very much surprised when the report came in: It can't be done.

Now, if you would like to go into the discussions of why it can't be done and want to take three hours for it right now, we will do so and go into many statistical details. We will not do that, but it can be done. We can relinquish our interest, so to speak. We can even go to the board of directors of some of these companies and turn it over to them. Some of the regular insurance carriers, those who write not only sickness and accident but health insurance, tell us that they don't know that they want to do it in this group under any circumstances. There are those companies who today are just waiting for us to support their plan and to come in with them to a certain extent.

Our conclusions are these, as has been the thought of the medical profession from the time we first heard the matter of socialization of medicine discussed, that on that day, when there is any form of socialization of medicine there will be those commercial interests, whether it be the selling of bed pans or the selling of insurance for a profit. Labor and agriculture are saying, "We want to enter into a non-profit thing."

Mr. Martell, at the meeting in Lansing some time ago, got up and made this statement, "We find it to be the opinion of labor that they do not propose to enter into any plan that gives to the profit insurance carrier 30 per cent or more of the profit, taking it out of the medical care that they feel is due them." When it comes to dealing with this low income group, where the medical profession sacrifices in its fees and others are sacrificing all along the line, I want to say to you that Mr. Martell was right in that regard. That is my personal opinion.

Group Medical Care

The utilization of the group principle in the wider distribution of quality medical care in America has not been sufficiently general or broad to present much actuarial data or accurate experience tables.

That has been a thought in the minds of many members of the medical profession and, therefore, has created fear. Now let me read you the next statement.

Nevertheless, private insurance companies are setting up this type of coverage this year in 55 new policies.

They do not fear it.

In our own state, the State Society's Committee on Medical Economics made an exhaustive survey and presented some interesting data and statistics to the M.S.M.S. House of Delegates in 1934. The Committee's estimates for annual cost and expenditure figures on the services of physicians actually purchased were:

(a) General practitioner of medicine	\$ 5.00 per person
(b) Report of Annual Physical Examination .....	.50 per person
(c) Report of Immunization...	.25 per person
(d) Medical Specialists' Services	3.00 per person
(e) Laboratory Services	1.00 per person
TOTAL	\$ 9.75 per person
(f) Administration, 10% .....	.98 per person
(g) Surplus, 5% .....	.49 per person

GRAND TOTAL\$11.22 per person per annum

And again let us not stumble over detail in this particular regard. It is subject to expansion or contraction.

Whatever may have become of that report, which cost much and is very valuable, these figures can be depended upon.

Please note the above includes only the figures for that portion of medical care which can be done by a doctor of medicine exclusively and unaided, in private practice, with some few exceptions.

Based on the above figures, which represent expenditures for services actually purchased—not for all the services desired, a high percentage of physicians' services now being purchased could be under-

written under the insurance principle at approximately \$1.00 per month per subscriber in any group medical care plan. However, this \$1.00 per month subscription might not be an adequate premium to cover all the medical services needed and procurable from the physician. Thus the same standard objection could be raised: That for a very definite and limited premium, a very indefinite and unlimited amount of service is promised by the physician. This is a travesty on the insurance principle.

In life insurance they charge a certain premium. They know that you are going to die and the amount of money that will be paid out can be estimated. But if you pay a certain premium for sickness insurance and then have the sky the limit it just can't work and, therefore, should not be called insurance, and that is the reason for that statement. We can go into further detail if you like.

If the total of medical cost per person is set at a maximum limit, and if a limitation is made whereby the individual assumes the cost of the initial and minor charges of the illness, the very modest rate of \$1.00 per employed subscriber might be set, which would adequately cover the catastrophic occurrences of illness in the borderline and low-income groups especially (up to incomes of \$1,500.00).

Again let us not fall over that \$1,500. Remember the interests in Washington, we understand, would like to double that.

To accomplish this, benefits could be placed on either one of two bases:

1. The "unit system," whereby an employed subscriber would be entitled to a maximum block of units (not dollars) of medical service, as for example:

50 calls of a physician.....	300 units
1 major operation	300 units
1 minor operation	100 units
1 fracture	150 units
Miscellaneous diagnostic service.....	150 units
TOTAL	1,000 units

Someone said, "That is like buying so many poker chips." I don't know anything about that, but someone could explain. (Laughter.)

All types of medical and surgical care and diagnostic service, performed by the doctor of medicine in private practice could be offered, with some exceptions. The patient may elect to utilize all his units in house or other calls, or for several operations, or for diagnostic procedures.

You see there would be a limit.

A larger block of units could be purchased by the subscriber at slightly higher premiums, in proportion to increased benefits.

But again there would be a limit.

The patient would assume the cost of minor charges, for the first 10 or 15 units (one call per day for 3 or 5 days).

You see, this puts a limit of the floor of it also. This individual representing the Grange said to me, "We can get along somehow. The doctors are good to us. They come, and if we can't pay them now we can pay them some other time, but the people are just panicky when it comes to something that is going to cost them \$150 or \$300 or \$400, and they want their children to have what is good the same as you and I."

No. 1, which we have read, has to do with the unit system, and No. 2 has to do with the time system.

or

2. The "time system" whereby an employed subscriber would be entitled to a maximum number of days' or weeks' coverage of medical care, as for example, 26 weeks. Again, all types of service per-

formed by a doctor of medicine in private practice could be offered, with some exceptions. However, under this system the patient with the neurotic trend would have no particular inducement, during the 26 weeks of coverage, to conserve his or her medical resources.

The patient would assume the cost of minor charges for the first three (or five) days of medical care.

Under either of the above two plans, the true insurance principle of definite rates and definite benefits would be preserved.

Fee schedules to reimburse the physician would be developed on a unit basis, with certain medical services designated as representing a certain number of units. (For portion of such a fee schedule, see *Exhibit E*). At the conclusion of each month, a determination would be made from the financial figures of the plan to ascertain the unit value (as for example, if \$50,000 were collected over and above operating costs, and the total number of units of service for the month was 50,000, the unit value would be \$1.00). Compensation for the physicians' service would be determined by the number of units due him based on the unit value, on which a maximum would be set, to build up the reserve. A financial reserve necessary to start the plan could be created by coöperating physicians relinquishing their rights to the first amounts due them up to a designated amount (which might be \$50 or \$100) until a proper reserve had been created, when said money would be paid back to the physician, with or without interest.

Let us not stumble over that at all. Any of us going into a thing of this kind would be willing, if by that means it would help to get under way, to do it.

The plan should be open to every licensed doctor of medicine who agrees to abide by the rules and regulations. This will eliminate any charge of contract practice. The patient would have free choice of physician, M.D.

The Committee sees no reason why the plan could not be extended to include the care of indigent or semi-indigent groups by contractual arrangements with the community.

That is a big subject in itself. It is potent with good things.

The subscriber's contract would provide that the plan is not to render medical care or furnish him with a physician, but that it merely accepts the responsibility of paying for the cost of medical care and discharging the obligation of the subscriber with the attending physician, provided he is a co-operating doctor.

How much like the practice of medicine as it has always been! How different from what it would be if there were opportunity for the doctor, through some political force, to get into this position or that. If you want to look this over and read the paragraph of definite importance to us, mark that paragraph and read it again later.

The physicians who participate in the plan would be asked to agree to arbitration of any questions in dispute and to abide by the decisions of the Board of Control with reference to any questions which might affect their continued membership and service to subscribers, realizing that the successful operation of any such plan is contingent upon the proper coöperation, deportment and consideration of the doctors of medicine who are rendering professional service to the subscribers.

We have learned this, that there is a power to the policing of these things by the medical profession. If you are in Detroit some day and have three or four hours in which you would like to study that principle, we can send you to one branch of our Probate Court and you can see what

happens to medical costs when the matter of whether or not this or that should be done is left in the hands of the county society.

Your Committee believes that a group medical care *experiment*, based on the above general principles, could be started and tried in certain areas or communities where the county medical society will act as guarantor of service, and that a nonprofit corporation, permitting state-wide service and care by eventual development, should be formed.

We can only arrive at the conclusion after these studies that it ought to be formed, that the people in any town up through the state or any group of agriculturists should have the right to put their money into a pot from which the cost of their medical care might come, provided it can be regulated, and it can be, by the medical profession.

We must give opportunity to experimentation, to keep us free from governmental encroachments. Without a constructive program, we might be easy prey for commercial or political influences,

Two special delivery letters and one telegram came during the night last night to that point. They want to get their hands into it. When commercial interests and political interests both want to get their hands into it, if we let them do it, make up your minds that the medical hands will be tied and the patient will suffer.

not in the best interests of the public. If we go ahead with some forward movement at this time, and give it wide *publicity*,

Why wide publicity? There comes a time when we cannot be so modest as a whole medical profession.

the profession will be in a strong position to direct public opinion, and thereby influence good legislative action in the interest of public welfare.

Understand they are not recommendations. They are questions.

Questions of the Committee

1. Do you wish to instruct your Committee on Distribution of Medical Care to form a non-profit group medical care corporation in this state, to permit experiments with group medical care in various areas of Michigan with the co-operation of labor, industry, agriculture, religious and educational organizations, community councils, and other interested groups?
2. If so, shall the experiment be on the "unit system" for subscribers and physicians?

or

3. If so, shall the experiment be on the "time system" for subscribers and the unit system for physicians?

(Applause.)

THE SPEAKER: Our afternoon session will be held in the Ivory Room. We have about forty-five minutes. While Dr. Pino has rendered a wonderful report and gone into great detail, I think it is only fair to let the members ask any questions about any points on which they are in doubt or discuss this report now before it goes to the Reference Committee.

DR. J. M. ROBB (Wayne County): I should like to ask a question. There seems to be some doubt as to whether an enabling act should be passed. I would like to have a discussion among those who feel that it should and those who feel that it should not, because in the handling of this problem that is the first thing to be considered, and the only way that we are going to make progress is by acting in a very definite way.

I have talked to some people who feel it is impossible for either of these services to be granted to the people of the State of Michigan without an enabling act. I have talked to others who feel that

it is not necessary. I should like to get this matter as promptly before this House of Delegates as we can. Upon that basis only can we possibly vote.

THE SPEAKER: Maybe it would be a good idea to have Dr. Pino answer your question, Dr. Robb, if someone familiar with what an enabling act is and how it could be passed would explain that, either Dr. Gruber or Dr. Christian.

DR. PINO: May I suggest Dr. Gruber? I believe he has gone into it very thoroughly. I believe Dr. Insley feels we might do better without it under some circumstances. If those two could be called on—and Mr. Burns has been discussing it a great deal—it might be amplified.

THE SPEAKER: Dr. Gruber, would you come forward?

DR. GRUBER: I am not quite ready.

THE SPEAKER: Mr. Burns, can you give us a little enlightenment on an enabling act?

MR. WILLIAM J. BURNS (Executive Secretary): Mr. Speaker and Gentlemen: It is the recommendation of the American Hospital Association to all who are considering group hospitalization that a very firm foundation be put under such a plan, and it recommends an enabling act.

At the present time in Michigan there is no possibility of creating a group hospitalization plan which is strictly not an insurance company. There are four types of insurance companies which are under the control of the insurance commissioner.

First, there is the stock company selling insurance. You know the typical stock company, such as Metropolitan Life. There is the mutual insurance company, and you all know just what that means. Rather large reserves must be set up with the treasurer, such as \$200,000, to insure promised performance on the part of the corporation to the subscribers. So the state steps in and protects the policyholders by insisting that these corporations set up rather large reserves and sums of money or bonds with the Treasurer of the State of Michigan.

The third type under the Insurance Commissioner is called the coöperative. The coöperative doesn't require such tremendous reserves. I think only about \$5,000 is required and other considerations. I understand in Michigan there are two corporations under the coöperative section of the insurance code which now are selling group hospitalization.

Finally the reciprocal, which does not apply to group hospitalization.

There is a possibility also of having a corporation for the purpose of selling group hospitalization under the Security and Corporation Code, not the Insurance Code. That is the type of corporation under which the plan developed by certain of the hospital superintendents of Detroit is working, until such time as an enabling act has been placed on the statutes.

Two employes of the Insurance Department have stated that for the success of any plan and for the protection of the subscribers, it is their opinion that a group hospitalization corporation should be developed on the foundation of an enabling act. That enabling act will allow such a corporation to be formed. It will still have the control of the Insurance Department. The Insurance Commissioner will have charge of approving the forms and all those other details, but the corporation (nonprofit) will be exempt from tremendous reserves. In other words, it won't be necessary to put up, let us say, \$200,000, and it is hoped that the legislature will also exempt it from taxation, since it is a public service organization in the true sense of the word rather than an insurance company. In other words, it is a public insurance proposition rather than a private insurance company, as Dr. Pino has brought out.

An enabling act is introduced as a bill in the Legislature which after going through one House, is passed by the second, then is signed by the Governor, and thus becomes a law which permits the creation of group hospital corporations to perform certain acts and have certain privileges but which at all times is under the supervision of the Insurance Department in the interest of the subscribers.

THE SPEAKER: Dr. Gruber.

DR. T. K. GRUBER (Wayne County): Mr. Speaker and Members of the House of Delegates: The question has been brought up as to whether it is necessary to have an enabling act. One of the first answers is that the experience throughout the country, so far as group hospitalization is concerned, has been that an enabling act is necessary.

With group hospital insurance you are not indemnifying people in cash; you are indemnifying them in service. You have a cooperative organization made up of hospitals, the public, the medical profession, and the like, who are acting as agents for the hospitals and for the patients in rendering them service, and for that it seems to be necessary to have a different law enacted than is in existence at present because all of the insurance laws at present provide for the indemnity to be paid, to the individual who pays the subscription, in cash.

There are certain other arrangements in the matter of group hospitalization as it is practiced in this country which allow a rather loose organization, whereby certain things can be done that are not done in insurance, in the matter of building up reserves and of carrying these reserves and not distributing the reserves, and at the present time there is nothing on the statute books of Michigan that makes it possible to do that.

The organization that has been formed, as stated, is under a different arrangement. It may be on a legal shoestring. At least that is the idea of a lot of individuals who have studied the plan. If an enabling act is passed it makes it legally possible to go into this thing without fear of attack.

Now, when it comes to the question of an enabling act for so-called group health insurance, as to just what sort of an enabling act will be necessary for group health insurance, it seems to me that it would mean no different relationship between the individual and the doctor than there is in the group hospital insurance between the individual and the hospital.

It is true that a corporation can be formed by putting up the necessary cash or the necessary securities, the same as any other insurance organization. I don't know what the minimum amount is that is necessary. It would run probably \$15,000. On that basis you can form a regular insurance company, a non-profit insurance company, under the present laws. But there are some fifty organizations operating today under the revised insurance laws, and the interpretation seems to be that you cannot indemnify people for service under the present insurance law.

I believe that is the explanation of the situation.

THE SPEAKER: Dr. Insley, can you tell us why we should not pass an enabling act? Have you any ideas on that subject?

DR. S. W. INSLEY (Wayne County): Are you speaking of group hospitalization or sickness or both?

THE SPEAKER: Both. Dr. Gruber just explained why an enabling act was necessary.

DR. INSLEY: As I understand it, all of the services or indemnities which might be offered by a company working under an enabling act can today be offered by companies operating under the Insurance Commission and upon a mutual basis.

It seems that there is a distinction made in that individuals or groups who might have \$5 or \$50 or \$500 and want to go into this business (we will call it that) would have to go in under a new law, an enabling act. A corporation trying to do this requires an enabling act where they are putting in their own money. A group of people, on the other hand, can band together in a mutual system of benefits to themselves and do it under our present laws today and be governed through the Insurance Commission.

As one last remark on this, an enabling act of any type, whether group hospitalization or sickness insurance, cannot be made into a monopoly, so that such business can be done by doctors only. Any enabling act allowing a corporation to do this business would also allow 2,500 other corporations to go into the same business if they had the money. You cannot make an enabling act that will give doctors or the Michigan State Medical Society exclusive right to sell either group hospitalization or medical service.

DR. GRUBER: Mr. Speaker and Members of the House: There is a pamphlet put out by the American Medical Association, and I believe edited by Dr. Leland, on "Group Hospitalization." If each one of you would get a copy of this and read it you would find the best dissertation on group hospitalization that has ever been put out. He goes into all the faults and all the virtues and all the vices.

On Page 223 of this pamphlet it reads:

"The procedure that is now being followed is to secure the passage of a special enabling act which exempts hospital service corporations from the deposit requirement of the insurance laws but at the same time gives the insurance commissioner certain supervisory powers over these corporations.

"The change in the legal relation of group hospitalization plans has served to make it difficult to promote commercial plans. The enabling laws focused attention on several important requirements: The majority of the directors of a hospital service plan were required to be directors or trustees of the hospitals which had contracted or might contract to render the hospital service; some method of approval of the participating hospitals was also required; the certificate of incorporation had to be endorsed by the commissioner of insurance or the department of social welfare; the proposed contract rates, acquisition costs and methods of operation were subjected to the approval of the commissioner of insurance; annual reports had to be filed, and the records and affairs were open to inspection by examiners from the insurance department; and the investment of funds was restricted to those investments permitted life insurance companies.

"These provisions constitute a notable step forward in the supervision of hospital service plans."

Then he goes on in a couple of pages on the shortcomings.

"Despite these shortcomings, the resulting closer supervision of hospital service corporations has forced the promoters of commercial plans, as well as those who desire to offer a more extensive contract, to form a new institution—the hospital insurance company. The necessity to organize a nonprofit corporation, with hospital administrators and physicians controlling the policies, was too much of a deterrent for profit-taking and overzealous promoters. Furthermore, hospital insurance companies could be readily formed in states in which enabling acts would have to be passed to permit the operation of hospital service plans. The mutual assessment insurance laws provided a direct method of organizing such companies. The requirements usually were that a company had to have a few hundred applicants, several thousand dollars as 'legal' reserve and a certain reserve for unearned premiums. Even where an enabling law was on the statute books of one state, a group hospitalization plan, in operation for four years before the passage of the law, and a newly organized plan each elected to qualify as a mutual assessment insurance company by depositing \$25,000 with the insurance commissioner rather than to organize under the enabling law. The enabling law contained a definition of hospital service which was interpreted to exclude the services of radiologists and anesthetists. The possible competition of law organizations and insurance companies selling a more complete hospital insurance policy under the mutual insurance laws was the

compelling factor which caused the organization of these plans as hospital insurance companies."

I just wanted to read that excerpt from Dr. Leland's dissertation. If you write to the American Medical Association you can get that volume. It is hard reading, but when you get through you will know something about group hospital insurance.

THE SPEAKER: Is there any further discussion on this problem?

Are you satisfied, Dr. Robb?

DR. ROBB: Mr. Chairman and Gentlemen: I am entirely satisfied so long as the delegates understand the implication, because upon no other basis can you possibly vote when the time comes. If you understand it, that is the only reason for my calling it to the attention of the group.

DR. R. M. MCKEAN (Wayne County): I wonder whether an opinion could be obtained from the Attorney General's Office as to whether or not an enabling act is necessary under such circumstances.

THE SPEAKER: I don't think any opinion has been secured.

Maybe we could put that question to Attorney Hazen J. Payette during the recess and have him look it up.

DR. S. W. INSLEY (Wayne County): I can answer that at least partially, Dr. McKean, by saying that the Insurance Commission at the present time is licensing mutual outfits on group hospitalization. It is permissible under the state law upon a mutual basis.

DR. R. L. NOVY (Wayne County): Have we any legal advice on that as to whether or not it is desirable? Why should we discuss this problem? It is a question of a legal problem, it seems to me, and a question of legal expediency as to where you are going to go, not a question of decision here.

DR. PINO: Dr. Novy is correct. Let us just say this in dismissing that, if the time has come to dismiss it, that if we need an enabling act we can get it, if we have these other organizations interested in going along and helping us to do it. If we step out by ourselves and try to do it, we will have difficulty.

As to the statement that if there is an enabling act any group can act under it, no group can act under an enabling act if it doesn't have public support. If we have the interested groups, we will have public support.

In relation to that fact also, any individual can be armed to go deer hunting if it is legal. It can be abused all along the line.

I don't believe we need to worry about the matter of the enabling act now, providing we have the coöperation of all the various groups.

I am speaking of this from the standpoint of the practical political side.

DR. R. C. PERKINS (Bay-Arenac-Iosco-Gladwin): The question came to me, after glancing over this proposed enabling act, as to the authorship of the enabling act. That the Committee probably can tell us. I am not an attorney. If there ever was an act that created an absolute monopoly, this is it. The A.M.A. is accused of being a monopoly, and we are all a part of the A.M.A. As I read this thing, it certainly means a monopoly to say that any number of persons can form a corporation to go ahead and start up some such proposition as this. It also says that nothing in this act shall be construed so as to permit a hospital or other corporation to engage in the practice of medicine in violation of Act 237 of 1899 as amended or to contract to furnish the service of a physician for members.

No other organization can go ahead. They can form an organization, but they cannot contract to furnish the services of a physician for their members.

I was wondering about this. To my mind it creates a monopoly. If it does create a monopoly under those conditions certainly it would be fought by every insurance company and by every practitioner of any type in the State of Michigan.

DR. PINO: You are referring to Exhibit A, are you not?

DR. PERKINS: Yes.

DR. PINO: Exhibit A was set up as the first thought relative to creating a bill whereby we could practice both hospital insurance and medical insurance, was it not?

Now, you don't expect us to bring to you a bill stating that everybody can do these things. If you would go through this you would find so many things that you could conscientiously attack that it would bring to your attention the very thing that came to our attention last week when we spent many hours with Mr. C. Rufus Rorem and with the hospital people in trying to arrive at something that would be mutually agreeable. In this we were trying to set up something to which we could both agree to a certain extent, knowing it would have to be modified.

THE SPEAKER: Is there anyone else who has any questions he would like to ask?

If not, we will refer this report to the Reference Committee, headed by Dr. Insley. You can see the names on the board. They will meet in the Ivory Room during the recess.

We have a few more minutes, and there is another matter we might take up now. That is a letter of support to Dr. Olin West and the A.M.A. in their hour of trouble. Dr. Luce, would you care to talk about that now?

RESOLUTION OF SUPPORT TO A.M.A.

PRESIDENT LUCE: Mr. Speaker and Members of the House of Delegates: Those who heard my remarks this morning have a thought that will lead you to the purpose for which Dr. Riley has just made this statement. I am not a member of the House of Delegates, but with your permission I would like to recommend to you that you take some official action as the House of Delegates of Michigan State Medical Society in which you pledge the support of the medical profession of the State of Michigan, not alone to the officials of the Association but to the organization as a whole, because I hope you felt this morning that this attack on your integrity, this attack on your motivation, has been made upon you directly as well as those named in the indictment.

I feel that it would be a consolation and support to the national organization should you by some official act express to that organization your willingness to coöperate, your belief in its integrity, and your willingness to fight and carry the issue to the people of this country on the basis of its merits. (Applause)

THE SPEAKER: At the Council meeting last evening a similar resolution was passed.

DR. INSLEY: As Dr. Robb pointed out a few minutes ago, there are so many questions arising that we would all like to have our minds clarified a bit. I hope everybody comes into the Reference Committee meeting this afternoon and helps the Committee out.

To answer a question brought up just a minute ago on this corporate practice, under the enabling act, we already have a monopoly as far as the practice of medicine is concerned. We doctors

are practicing medicine and nobody else is practicing. This act will not change that a bit. My argument is, however, that it still allows other corporations to engage in sickness insurance with no guarantee as to what the payment to physicians might be. They might decide that office calls could be paid for at the rate of 25c or 50c or \$1, or operations at 50 per cent fees, all the way down the line. A government unit, such as the HOLC, could incorporate and decide, after getting 150,000 or 200,000 members, to pay for office calls at any rate they choose.

Does that explain the difference?

AUTHORIZATION TO THE COUNCIL RE FINANCES

PRESIDENT LUCE: I am sorry to take so much of your time, but it would seem desirable to me that this House of Delegates authorize the Executive Committee of the State Society to make such expenditures of money, either from the funds of the Society or, if necessary, from contributions or assessments on the members of the organization to defray such expenses as in the judgment of the Executive Committee might be necessary under existing circumstances for the ensuing year.

THE SPEAKER: Are we to infer, Dr. Luce, that you mean as far as the A.M.A. is concerned, to offer financial assistance to it?

PRESIDENT LUCE: By any method or procedure that the judgment of the Executive Committee and the officers of the Society might decide was necessary.

THE SPEAKER: I raise a point of order. Has not the Executive Committee that right now to appropriate money as it deems necessary?

PRESIDENT LUCE: I believe it has. On the other hand, I was asking even more than that. I was asking that the Executive Committee be authorized to spread an assessment on the Society, if in its judgment they saw it was necessary.

DR. P. L. LEDWIDGE (Wayne County): Allowing for my natural dumbness, I would like to know just what Dr. Luce means. Is he willing to say what we want money for so we will know what we are doing?

President Luce spoke off the record.

Dr. Urmston spoke off the record.

THE SPEAKER: I will appoint a committee to bring in a resolution this afternoon covering proposed resolutions to the A.M.A., that committee to be composed of

W. R. TORGERSON (Kent), Chairman

ANDREW P. BIDDLE (Wayne)

J. M. ROBB (Wayne)

Dr. Robb spoke off the record.

DR. HENRY COOK: As Chairman of the Contact Committee to Governmental Agencies and associate of the Legislative and Public Relations Committees, I would like to state there are many problems which we do not now know. Dr. Robb has mentioned that the American Medical Association is under attack by the Treasury Department. Equally so has an assessment been placed against your State Society for a certain period, and that time may be extended to ten years.

In the work of your Committee in contacting various individuals and legislators, both state and national, the time of certain members of your profession is required to carry on the work. There are certain expenses thereto incurred. They may be legal expenses. They may be the payment of the travelling expenses of those individuals. There is no way today of telling just to what extent that will go. It may be that the budget is ample, but legislatively in the past our funds

were much depleted. I believe this matter should be referred to a committee that Dr. Luce has brought up. I believe what I am stating is the thing he had in mind.

I think a committee should report back to you this afternoon some recommendation giving or not giving, whichever you may deem advisable, the Executive Committee or the Council, authority to take such action as to finance legitimate business of the profession of the State and the Society. I can assure you that it will be properly handled, without any question. (Applause)

THE SPEAKER: It seems there are two items of business we have been talking about during the remarks of the last few speakers. A committee was appointed to draft suitable resolutions to send to the A.M.A. I am going to appoint another committee to bring in a resolution on this finance proposition. On that committee I will name

H. W. WILEY (Ingham), Chairman

R. C. PERKINS (Bay)

R. M. MCKEAN (Wayne)

I want Dr. Carstens, the Chairman of the Finance Committee, to sit in with them when they draft these resolutions.

It is now one o'clock and we have to vacate this room.

Dr. Insley, can you tell me how long it will take your committee, to get some lunch and report back?

DR. INSLEY: I think that plenty of time should be used in discussion before the Reference Committee. On the other hand, I feel a certain time limit should be placed on such a hearing. I would suggest an outside limit of two hours, including lunch.

THE SPEAKER: The Chair will then entertain a motion to recess until three o'clock.

PRESIDENT LUCE: Before you put that motion, may I make this suggestion? It saves a lot of time on the floor of this House if individual members who have these problems will take them up directly with Dr. Insley's committee where it can be threshed out.

DR. P. L. LEDWIDGE (Wayne County): I move we recess until three o'clock.

DR. PINO: I would like to suggest, as a practical thing, that while that committee is in session they take their places at the table at the front of that room and discuss this thing and let everybody who will sit in that room, as you would in a panel discussion. A good many things will be brought out, and you will know what it is about without having to depend on their word alone.

THE SPEAKER: There has been a motion made that we recess until three o'clock. Is there a second?

The motion was seconded by Dr. McKean of Wayne County, put to a vote and carried, and the meeting recessed at one o'clock.

SUNDAY AFTERNOON SESSION

January 8, 1939

The meeting was called to order at three-fifty o'clock, Dr. Riley, the Speaker, presiding.

THE SPEAKER: The second session of this meeting will now come to order.

Has the Credentials Committee its report?

DR. LEDWIDGE: Mr. Speaker, we have sixty-five.

DR. G. H. SOUTHWICK (Kent County): I move that sixty-five constitute the roll call for the second session of the House of Delegates.

The motion was seconded by Dr. McKean of Wayne County and carried.

THE SPEAKER: The first thing we will take up is a report from Dr. Torgerson.

REFERENCE COMMITTEE REPORTS ON RESOLUTIONS

Resolution of Support to A.M.A.

DR. W. R. TORGERSON (Kent County): Mr. Speaker, the Committee made up of Dr. Biddle, Dr. Robb and myself met and formulated the following resolution:

"The House of Delegates of the Michigan State Medical Society, in Special Session at Detroit, Michigan, on January 8, 1939, herewith resolves that the physicians of the State of Michigan regret that any organization with the historical background and record of purposes and accomplishments as that of the American Medical Association and which has so constantly directed its efforts toward the spread of education and scientific advancement for the health and welfare of the American people should be so summarily indicted. We, therefore, earnestly pledge our support in the hope that justice may be obtained.

(Signed) ANDREW P. BIDDLE,
J. M. ROBB,
W. R. TORGERSON, Chairman."

We move the adoption of this resolution.

The motion was seconded by Dr. Harvey Hansen of Calhoun County and carried.

DR. J. A. HOOKEY (Wayne County): I move that a copy of this resolution be sent by wire to the A.M.A. headquarters.

The motion was seconded by Dr. R. L. Laird of Wayne County, put to a vote and carried.

Reference Committee Report on Resolution Giving Authorization to the Council Re Finances

THE SPEAKER: Dr. Wiley, will you give us the report of your committee?

DR. H. W. WILEY (Ingham County): Your Committee met and offers the following resolution:

RESOLVED, That this House of Delegates express to the officers and councillors of the Michigan State Medical Society its confidence in the soundness of their deliberations and support any expenditures from the Treasury of the Society that seem in their judgment to be necessary. Furthermore, if additional funds are required in the pursuance or conduct of the Society's activities, the Council be authorized to levy a capital assessment or assessments, not to exceed a total of \$5 for the current fiscal year, as seem justified in their considered opinion.

(Signed) HAROLD W. WILEY, Chairman,
R. C. PERKINS,
RICHARD M. MCKEAN.

I move the adoption of this resolution.

The motion was seconded by Dr. G. H. Southwick of Kent.

THE SPEAKER: You have heard the motion. Is there any discussion?

The question was called for, the motion put to a vote and carried.

THE SPEAKER: Dr. Brasie, is your report ready?

REFERENCE COMMITTEE ON REPORT OF THE COUNCIL

DR. DONALD R. BRASIE (Genesee County): The Reference Committee on Reports of the Council, after due consideration and full appreciation of the efforts expended by the Council upon the report of group hospital service and group medical care plans, advise acceptance of the report.

With reference to the Council's recommendation for action, this Committee recommends that before any plan be finally adopted, said plan be submitted by mail for a vote by the individual members of the Michigan State Medical Society.

Mr. Speaker, I move the acceptance and adoption of this report.

The motion was seconded by Dr. James J. O'Meara of Jackson County.

THE SPEAKER: It has been moved and seconded that this report be adopted. Is there any discussion on it? This is quite an important thing.

A re-reading of the report was called for by one of the delegates.

DR. BRASIE: Mr. Speaker, I move we go into executive session.

The motion was seconded by Dr. A. V. Wenger of Kent County.

The motion was carried.

The House of Delegates went into Executive Session and discussed the report of the Reference Committee on The Council's Report.

Thereafter, the House arose from Executive Session, on motion of Drs. T. K. Gruber—W. Joe Smith.

REFERENCE COMMITTEE ON OFFICERS' REPORTS

DR. F. J. O'DONNELL (Alpena): This is the Report of the Reference Committee on Officers' Reports.

Your Committee has perused the reports of the President and the Speaker of the House of Delegates and wishes to commend them on the firmness of their convictions and the clarity of their statement of the problems confronting the profession.

We also wish to express our appreciation to the officers of our Society for their untiring efforts, physical and mental exertion, and personal expenditures involved in behalf of the Michigan State Society.

Respectfully submitted, Drs. Harkness, Day, Catherwood and O'Donnell.

I move the adoption of the report.

The motion was seconded by Dr. Southwick of Kent County and Dr. John A. Wessinger of Washenaw County, put to a vote and carried.

THE SPEAKER: Are the two gentlemen representing the National Medical Association here? Will Dr. Owens and Dr. Carney please come forward?

DR. E. R. CARNEY and Dr. S. H. C. Owens came to the front of the room.

THE SPEAKER: These gentlemen are delegates here from the National Medical Association. They were at the special session of the House of Delegates of the A.M.A. in Chicago, and have decided to cast their lot along with us. I would like to have them take a bow, and maybe one of them could talk for a few minutes. (Applause)

DR. E. R. CARNEY: Mr. Chairman and Members of the House of Delegates of the Michigan State Medical Society: We consider it a rare privilege to have the honor of sitting with you, listening to your resolutions and deliberations on hospital insurance.

I happen to be the President of the National Hospital Association, representing 110 Negro hospitals in the United States. These are located principally in the South, as you know. I have visited in the past year seventy-seven of these hospitals. Naturally we are interested in any type of insurance. The 4,000 Negro doctors in the United States, dentists and pharmacists are interested also. We are interested in our security. Naturally we feel that any type of insurance that is passed by any state will be beneficial to the 12,000,000 Negroes in the United States, and 9,000,000 of those are located in the South, where medical care and hospital facilities are limited.

We are grateful for this opportunity, and we sincerely hope to coöperate with you in every pos-

sible way. We feel it is quite a privilege to be here. Thank you. (Applause)

THE SPEAKER: Thank you, Dr. Carney.

Will Dr. Insley come forward and give his report?

REFERENCE COMMITTEE ON REPORT OF COMMITTEE ON DISTRIBUTION OF MEDICAL CARE

DR. S. W. INSLEY: The matters contained in the material presented by Dr. Pino's committee have been considered, and your Committee begs to report as follows:

It has reaffirmed the principles endorsed by this body last September, relative to group hospitalization and sickness insurance schemes and recommends that all future action in group hospital and medical service plans conform to these principles.

It then considered separately, for purposes of clarity, first, Group Hospitalization, and second, Group Medical Service.

Group Hospitalization

Your Reference Committee recommends, by a majority vote, that the Committee on Distribution of Medical Care continue its efforts with the Michigan Hospital Association and the representatives of labor, industry, agriculture, religious and educational organizations, community councils and other interested groups to obtain a non-profit group hospitalization plan, sponsored jointly by the medical profession, the hospitals and the public.

Secondly, it is further recommended that the Council be empowered to coöperate with or assimilate any one or more of the group hospitalization organizations which are now formed or may be formed to transact such business.

Group Medical Care

Your Reference Committee, by a majority vote, recommended that we empower the Council to coöperate with labor, industry, agriculture, religious and educational organizations, community councils, and other interested groups, in the formation of a nonprofit group medical care organization.

DR. TORGERSON: Didn't the Committee have any recommendation on an enabling act?

DR. INSLEY: There was none made, Sir.

THE SPEAKER: You have heard the report of the Reference Committee. Is there anyone who wants to discuss this before a motion is made?

DR. B. R. CORBUS (President-Elect): I think it is an obligation which the President-Elect owes to you and to himself to express his own personal views, not in any way desiring to influence you. Dr. Luce has had an opportunity to express his views, with which I agree.

We need hospital insurance. It is extremely desirable that we coöperate with laymen, various groups and hospitals toward the formation of such hospital insurance.

I am pleased and happy to hear the report, so well delivered by Dr. Pino, in which he calls to your attention the possible seriousness of this Society's going into the hospital insurance business, but we need hospital insurance, the public needs it, and I am quite convinced that the diplomats in this organization, in their various home grounds, will be able to handle the situation, as was suggested in this resolution, so I am hoping that that resolution passes.

Now, in regard to the next, it has seemed to me that it is imperative for us to take very direct action on this question of health insurance. Various complications I am sure can be ironed out. This has been up before. It was up several years ago. I think that many of us feel that it is very regrettable that we did not do this experimental work. It would have saved perhaps the situation that the American Medical Association finds itself in at the present time. I don't see any dangers in it. Whereas this organization taking up hospital insurance must have a bank of cash reserve, in taking up this health insurance we have a bank of professional service reserve upon which we can draw, and after all the bank is drawn upon under our ethical standards all the time.

I am particularly pleased with the unit system, where a doctor is in competition with his fellow doctor, and where the individual has the privilege of choosing his doctor, and if that doctor does not give good service he goes to another doctor, who gives better service. So the quality and standard, because of the competition, is maintained.

I hope that you will consider this very carefully. I want you to know my view. I feel certain that it can be worked out in a satisfactory way, and I feel more, that it is imperative that you take action now. (Applause)

COUNCILOR F. T. ANDREWS: May I have the floor?

THE SPEAKER: You may.

COUNCILOR ANDREWS: In bringing up this resolution, I was concerned with the word "coöperation." It is my interpretation that coöperation with these insurance companies ties the hands of the Council in a very drastic manner, in a manner in which I feel that we cannot carry on the desire of you men. I feel that it does not convey the sentiment of this organization when you tie our hands and don't allow us to go on as you and other men throughout the state see fit. In other words, I feel that this doesn't accomplish anything.

DR. J. A. HOOKEY (Wayne County): I don't quite understand what Dr. Insley's committee means in their report. In the report of the Committee on Distribution of Medical Care, with reference to hospital insurance, they ask three questions. The first is whether they should continue efforts with the Michigan Hospital Association and the various other groups in an effort to form a non-profit plan. They recommend that we do that. At the same time, the Committee on Distribution of Medical Care asked if we were to assimilate or affiliate with one of the groups that are already in operation, and it seemed to me that they recommended that. Is that what that means? Does it mean that we are to take in one of these groups that are already operating?

DR. INSLEY: My understanding of the Committee's action was that it simply gave the Council the power to make such a move if they thought it desirable at some future date.

DR. HOOKEYS: You mean the Council decides one way or the other?

DR. PINO: May I explain something to that point? There are companies already in existence who have started this. They can see that if they are going to be truly nonprofit and in the interest of all it would be a good thing to enter into a general program in the public good and be willing to lose their identity in this group, which would be a very good thing under certain circumstances. We are only asking that the Council be given the power to take them in if they so see fit.

Does that answer your question, Dr. Andrews?

COUNCILOR ANDREWS: Not according to my understanding of your resolution.

DR. PINO: Would you like to have Dr. Insley read it again?

COUNCILOR ANDREWS: I think I have the import of it, but I still feel that that word "coöperate" is a word which binds us to coöperate and not set up or take in any other organization that we might see fit.

DR. PINO: If it says coöperate or assimilate, at any rate they use their judgment. They may come to a standstill and say, "Maybe we had better go ahead and continue with that group." For instance, here is this hospital group who have set up and gone a great way. They may finally say, "We will go along with you, as you wish." In that case, don't we want the Council to go along with that hospital group? That is the intent, Dr. Andrews.

COUNCILOR ANDREWS: I think the intent is there, but I don't like the wording.

THE SPEAKER: I think we should take this subject up in two divisions. There are two recommendations in that report. Will you read the first recommendation regarding hospital insurance and make a motion for its adoption so we can get our feet on the ground?

DR. INSLEY repeated that part of his report covering Group Hospitalization.

I move the adoption of this part of the report pertaining, as it does, to group hospitalization only.

The motion was seconded by Dr. Torgerson of Kent.

COUNCILOR ROY H. HOLMES (Muskegon County): Is there a minority report? I notice he said it was endorsed by a majority of the Committee. If there is a minority report, I would like to hear it.

DR. INSLEY: In endeavoring to expedite matters this afternoon, I simply had time to write the majority report. I myself, and I believe at least one more member, could very well have written a minority report. We haven't had the time.

COUNCILOR HOLMES: Could you give us that in substance?

DR. INSLEY: It is this in substance: It is not in the form of a motion. I am not particularly opposed to group hospitalization and some of the matters which have been stated here this afternoon. I feel that covers a large part of the catastrophic type of illnesses. However, I am not so sure that at this time we have to bind ourselves into promoting an organization or corporation to take up sickness insurance.

THE SPEAKER: The question was on a minority report on group hospitalization.

DR. INSLEY: I have no particular statement to make on group hospitalization.

THE SPEAKER: There is a motion before the House that we adopt the Committee's recommendation on group hospitalization. It has been seconded. Is there any further discussion on it?

DR. GRUBER: I wish to amend the first portion of the first recommendation by substituting "the Council of the Michigan State Medical Society" for "the Committee on Distribution of Medical Care."

The motion was seconded by Dr. Pino.

THE SPEAKER: It has been moved that the words "the Committee on Distribution of Medical Care" be changed and "the Council of the Michigan State Medical Society" substituted therefor. It has been supported. Is there any discussion on that?

PRESIDENT LUCE: May I ask that that be written on the blackboard.

The motion and the suggested amendment were written on the blackboard by Dr. Foster.

DR. TORGERSOON: If the amendment carries, won't the Committee on Distribution of Medical Care have any further part in it?

THE SPEAKER: Not on hospitalization. This directs the Council to go ahead and do something about it.

DR. URMSTON: I assure you the Council is not going ahead with this without the support and advice of the Committee on Distribution of Medical Care in any action we might take. It simply gives you the first part for the continued study on medical care, and the second part says the Council should go ahead and organize. We would perhaps continue for maybe a month before they would report to us. In that way we would take it up with the Committee and continue. It is all for your own interest. This gives us permission to tell them to go ahead and do this and do that and report to us and we will form this organization as you wish.

DR. TORGERSOON: I wanted to suggest that we put in the words "the Committee on Distribution of Medical Care and the Council."

DR. F. J. O'DONNELL (Alpena County): This amendment was seconded by the Chairman of the Committee on Distribution of Medical Care and I myself have the utmost confidence in him that he will go along with the Council on it.

THE SPEAKER: There is an amendment here.

The amendment was put to a vote and carried.

COUNCILOR WILFRED HAUGHEY (Calhoun): Our Committee on Distribution of Medical Care has struggled for a long time with that hospital group. Now we substitute the Council for the Committee on Distribution of Medical Care, and that is all right. Why not strike out the words "continue its efforts" and put in the word "invite" the Michigan Hospital Association to coöperate with us. That means we are ready to go ahead and maybe we can get them to come to us.

DR. C. E. SIMPSON (Wayne County): I move that the recommendations made by the Councilor be embodied as an amendment to this report, to strike out the words "continue its efforts with" and substitute "invite."

There was no second to this motion.

THE SPEAKER: Have you all read the report on the blackboard? There has been a motion made and seconded that this be adopted. It is all on group hospitalization.

The motion was put to a vote and carried and the recommendation on group hospitalization was adopted as amended.

THE SPEAKER: The second portion of Dr. Insley's report—and he has gone down to get a cup of coffee—is very short. Will you read it, Dr. Foster?

Dr. Foster read the Reference Committee's report.

DR. MCCLELLAND (Wayne County): I move it be adopted.

The motion was seconded by Dr. John A. Wesinger of Washtenaw County.

THE SPEAKER: Is there any discussion on this motion?

DR. R. J. HUBBELL (Kalamazoo County): May I ask a question? Does this recommendation mean to include possible care of indigents in certain communities? I think our Society is going to ask me what was done here on the care of the indigent.

THE SPEAKER: I think I will answer that myself. There is nothing here on the care of indigents

unless somebody takes advantage of this plan and buys some medical service for the indigent.

DR. ANDREW P. BIDDLE (Wayne County): Does this include professional care by the physician and all hospital service and everything?

THE SPEAKER: Your hospitalization is taken care of there. This refers to medical care.

DR. BIDDLE: In what way?

SECRETARY FOSTER: I will read it again. (Reading the recommendation on medical care)

DR. R. M. McKEAN (Wayne County): May I amend that by adding at the end, "along the general lines laid down by the Committee on Distribution of Medical Care."

THE SPEAKER: Is there a second to that?

There was no second.

DR. H. HUNTINGTON (Livingston County): I think if the member will notice, the preamble to this report said we reaffirm the principles of medical care, and that is all taken care of in the preamble of the report.

DR. H. W. WILEY (Ingham County): Does this mean the Michigan State Medical Society is on record as going into the insurance business?

Several delegates said "No."

DR. JAMES J. O'MEARA (Jackson County): Does this mean that I have to go back to my county society and tell them the Council is going to set up some system whereby we are going to tell all the practitioners in the County of Jackson what they can charge and how much they should charge for each individual case?

SEVERAL DELEGATES: No.

DR. O'MEARA: What does it mean then?

THE SPEAKER: Yes, I believe it does mean that.

DR. O'MEARA: If it means anything like that, I don't think we are entitled or empowered to do it.

I am down here as one representative—the Speaker is the other—of approximately one hundred doctors in the County of Jackson. They told me specifically to come down here and fight any set plan which is going to help to lead us into state medicine. If we put any plan like this into organization it is going to help for more socialized medicine. I think before we as delegates act for the rest of the 4,000 members throughout the State of Michigan, they should have a chance to vote on it themselves so they will know what their delegates are trying to do for them.

DR. C. S. KENNEDY (Wayne County): I rise, as an Irishman, to support another Irishman. I think his position is well taken. I am sorry Dr. Insley is not here to present his minority report. I am afraid that is exactly where we are heading. Consequently I am opposed to it.

DR. DONALD R. BRASIE (Genesee County): This is exactly what our Committee referred to, the wording there. As I understand it, if you pass that resolution you definitely empower the Council to form a nonprofit group medical organization. As much as we like the Council and trust them and know they are doing a very excellent job—and I don't think anyone criticizes that—you are giving them a blank check to underwrite any type of organization they see fit. I am not arguing about their judgment. It is undoubtedly better than mine and maybe better than that of the organization as a whole, but that is not the democratic way of doing things.

If we are going to have this kind of organization with all that it implies, then the members of the State Society as a whole should have the right to say whether or not they want it.

If it is necessary here to amend this particular resolution at this time to say that before any final action is taken definitely and before the Society

definitely commits itself to an organization plan, the members of the Society be given a vote on it, I will offer that amendment.

I move that we amend that recommendation to state that before it is definitely sanctioned by the Council of the State Medical Society it be referred to the members of the Michigan State Medical Society at large by a vote by mail.

DR. McCLELLAND (Wayne County): I will withdraw my original motion on the resolution and ask that as a substitute, with the consent of my second, this be laid on the table until such action as Dr. Brasie has suggested be taken.

DR. O'MEARA: Gentlemen, you are not talking only for yourselves. Lots of us have sons. I have. Perhaps they are going to be doctors. I know one of mine is. We are not only taking action on our own livelihood; we are taking action on our second, third, fourth and fifth generation. It is a serious thing. I don't think we as individuals here, on such short notice, should take action on it. I think all the members of the State Medical Society should have a vote.

DR. HOLLY (Muskegon County): I quite agree with all that has been said about the members of the Michigan State Medical Society having an opportunity to vote on this action that has been taken today. On the other hand, having had rather intimate contact with several members of the Council, knowing their attitude regarding medical matters as they affect you and me and everybody else, and having listened to threats by certain representatives of so-called medical practice at the last meeting in September, I would much prefer to put my confidence and my trust in the members of the Council as it is now constituted than to try to get some 4,000 doctors to give ideas on what is going to be done or what should be done.

The point is, whether we like it or not, we are going to have either socialized medicine by government, or we are going to have some form of medical service to the low-income group recommended by men like we have in our Council, and I for one would rather throw my lot with the Council than I would to throw it in Washington where we are going to have it if we don't take some action ourselves.

DR. FRANK E. REEDER (Genesee County): Mr. Speaker, I would like the Speaker to call upon Dr. Luce and ask him to discuss for us once more, in a few words, the sentiment of the House of Delegates of the American Medical Association in Chicago last September on this very question.

THE SPEAKER: Dr. Luce, can you recollect that?

PRESIDENT LUCE: Mr. Speaker and Members of the House of Delegates: I assume that we are practically in executive session. I know my remarks this morning were very ambiguous.

May I ask, as a matter of information, if all present are members of the organized medical profession of the State of Michigan?

THE SPEAKER: No, we are not in executive session.

PRESIDENT LUCE: If you want me to say what I wanted to say this morning, I would prefer to say it in executive session.

DR. GRUBER: I move the House of Delegates of the Michigan State Medical Society go into executive session.

The motion was seconded by Dr. Biddle of Wayne County and carried.

The House of Delegates went into Executive Session, and, after full discussion, adopted the recommendation on voluntary group medical care as submitted by the Reference Committee on reports of Standing Committees, as follows:

Group Medical Care

Your Reference Committee by a majority vote recommends that we empower The Council to coöperate with labor, industry, agriculture, religious and educational organizations, community councils, and other interested groups in the formation of a non-profit group medical care organization.

REFERENCE COMMITTEE ON REPORT OF THE COUNCIL

The report of the Reference Committee on The Council's Report was thoroughly discussed, and was not adopted.

ENABLING LEGISLATION

The following motion re enabling acts was adopted by The House of Delegates on motion of Drs. T. K. Gruber, Wm. R. Torgerson:

The Council of the Michigan State Medical Society is empowered to use its judgment in the matter of coöperating in introducing necessary legislation in the Legislature of the State of Michigan at the present session to make it possible to legally handle both group hospitalization and group health insurance.

Following is the résumé of the actions of the House of Delegates:

The House of Delegates of the Michigan State Medical Society:

1st—approved the principles of Voluntary Group Hospitalization

2nd—approved the principles of Voluntary Group Medical Service

and—empowered The Council in coöperation with the hospitals and civic groups to proceed with the establishment of plans embodied in the above principles.

Report of Reference Committee on Reports of

Standing Committees:

(Approved by the House of Delegates)

"The matters contained in the material presented by the Committee on Distribution of Medical Care have been considered and your Reference Committee begs to report as follows: It has re-affirmed the principles endorsed by this body last September relative to group hospitalization and sickness insurance schemes and recommends that all future action in group hospital and medical service plans conform to these principles.

"It then considered separately for purposes of clarity (1) group hospitalization and (2) group medical service.

Group Hospitalization

"Your Reference Committee recommends:

"(1) That The Council continue its efforts with the Michigan Hospital Association and the representatives of labor, industry, agriculture, religious and educational organizations, community councils, and other interested groups to obtain a non-profit group hospitalization plan sponsored jointly by the medical profession, the hospitals and the public.

"(2) It is further recommended that The Council be empowered to coöperate with or assimilate any one or more of the group hospitalization organizations which are now formed and may be formed to transact such business.

Group Medical Care

"Your Reference Committee by a majority vote recommends that we empower The Council to

coöperate with labor, industry, agriculture, religious and educational organizations, community councils, and other interested groups in the formation of a non-profit group medical care organization."

* * *

Additional motion passed by the House of Delegates:

"The Council of the Michigan State Medical Society is empowered to use its judgment in the matter of coöperating in introducing necessary legislation in the Legislature of the State of Michigan at the present session to make it possible to legally handle both group hospitalization and group health insurance."

ELECTION OF ALTERNATE DELEGATE

The House of Delegates unanimously elected Carl F. Snapp, M.D., of Grand Rapids, as alternate delegate to take the place of James J. O'Meara, M.D., resigned, on motion of Drs. A. T. Hafford, W. Joe Smith.

DR. PINO THANKED

A rising vote of thanks was extended to Ralph H. Pino, M.D. "for his untiring efforts, his loyalty, his integrity, and his interest in the medical profession," motion of Drs. D. R. Brasie, Carl F. Snapp.

The House of Delegates was adjourned at 5:40 p. m.

HEALTH PLAN TO CONGRESS

The Detroit News published this practical editorial on January 25:

"Studies of the needs and the developing movement for providing good medical care more widely have been fully reported and sympathetically treated editorially in *The News* for years. President Roosevelt now transmits 'for the careful study of Congress' the report by his Interdepartmental Committee to Coördinate Health and Welfare Activities.

"Except for a feature involving a form of compulsory health insurance, the program for an even division of the costs between the States and the national Government and for a Federal-State administration of all health services probably has general support in the medical world and would be a step onward in social progress.

"But the attractions can not be regarded as the controlling consideration at this time. The cost for a first year would be \$100,000,000. After 10 years, the costs are probably underestimated at \$850,000,000. As money matters stand in national financing and in most states, where would the additional great sums come from?

"As time has gone on, with the subject kept before the public, state medical societies, Michigan's among others, have taken progressive steps to assist better in serving patients unable to pay anything and to provide for low-cost facilities for the low-income classes. These efforts will be tested if adoption of a Government system rests in abeyance.

"Although on the whole speaking favorably, the President did not urge immediate legislation. It may be his admission of the regrettable fact that the assumption of this major additional public expense is not at present safely practicable. All the promising things can not be done quickly. This is one which surely would best await a national income restored to the prosperity level, with the national Treasury extricated from its desperate straits."

◆ WOMAN'S AUXILIARY ◆

President—Mrs. P. R. Urmston, 1862 McKinley Avenue, Bay City, Michigan
 Sec.-Treas.—Mrs. R. E. Scrafford, 2210 McKinley Ave., Bay City, Michigan
 Press—Mrs. J. W. Page, 119 N. Wisner Street, Jackson, Michigan

ORGANIZATION COMMITTEE

On Tuesday, December 13, 1938, at the home of Mrs. Alvin Thompson of Flint, the Woman's Auxiliary to the Genesee County Medical Society was formed. Two weeks previously at a preliminary meeting attended by the state president, Mrs. P. R. Urmston, and Mrs. R. E. Scrafford, state secretary-treasurer, both from Bay City, Mrs. J. A. Spencer of Flint had been appointed temporary chairman.



MRS. WALKER

At the meeting held at Mrs. Thompson's, Mrs. Spencer presided. After a short talk by Mrs. Roger V. Walker of Detroit, chairman of the Organization Committee for the State, on the reasons for forming an Auxiliary, a vote was taken. The decision reached was that an Auxiliary should be organized. The following officers were elected:

President—Mrs. Gordon L. Willoughby, Flint.
 Vice President—Mrs. Alvin Thompson, Flint.
 Secretary—Mrs. James A. Olson, Flint.
 Treasurer—Mrs. T. Sidney Conover, Flint.

In December, the wives of the members of the Houghton-Baraga-Keweenaw Medical Society were invited to attend a dinner meeting of this Society. The subject of the organization of an Auxiliary was discussed, and Mrs. L. E. Coffin of Painesdale presented briefly some facts concerning the organization of an Auxiliary. There was considerable interest shown, and another meeting has been planned at which time it is hoped that an Auxiliary will be formed. We are deeply indebted to Dr. George McL. Waldie of Houghton for his help in arousing interest in the formation of an Auxiliary, and for all the help which he has rendered.

We hope, before the year is up, that there will be several more Auxiliaries formed. Mrs. L. Fernald Foster of Bay City, Mrs. A. V. Wenger of Grand Rapids, and Mrs. W. W. Lang of Kalamazoo have consented to assist the chairman of this committee, thus making it more nearly possible for some committee member to be near enough most of the organizing Auxiliaries to attend a meeting.

Respectfully submitted,
 HELEN R. WALKER (Mrs. R. V.)
Organization Chairman.

Jackson County Auxiliary

The following toast was given by Dr. Rex Bullen, president of the Jackson County Medical Association, at the annual banquet in December when the doctors brought their wives as guests:

THE DOCTOR'S WIFE

'Tis generally thought by intelligent folks that the doctor is quite a man;
 They know he studies and works and sweats and does the best he can.

In the complicated plan of life he plays a useful part
 Relieving human suffering with his science and his art.

He is recognized as a gentleman of learning and renown
 A credit to his country, his family and his town.

And I'm not taking from him any laurels he has known
 When I call your kind attention to his "power behind the throne."

She took him as a partner for weal or else for woe,
 Not knowing what direction or how far he might go.

Did she waver because he was in debt, with a car that would hardly run
 And had to live in a furnished flat and buy coal by half a ton?

Did she send him away to go make a name, to return when he'd won his spurs,
 When he could come back and shower her with diamonds and cars and furs?

Ah no! With a smile upon her lips and a brave little tilt of her chin
 She said, "We are partners in winning our spurs," and she started from scratch with him.

She sewed and washed and ironed his shirts and answered the telephone
 And while the doctor fought the good fight, he didn't fight it alone.

She sympathized when he lost a case in spite of the best he could give
 Of study and thought and work and prayer, to make a patient live.

She cushioned his head against her breast and ran her hands through his hair,
 And God! how it helps in a time like that to have someone to care!

Through all the years she has been his pal, his counsellor and his friend,
 His joys and his sorrows have all been hers and will be to the end.

And so, my brother physicians, I should like to propose a toast
 To one who has stuck through thick and thin and never deserted her post,

To one who is tender and brave and true and dearer to us than life;
 With all the sincerity and love in our hearts, a toast to the doctor's wife.

Kent County Auxiliary

"On Borrowed Time," the fanciful play by Paul Osborn which paradoxically deals the hurt of death and yet teaches its tremendous value, was capably read at the December meeting of the Kent County Medical Auxiliary. One of the popular hits seen on Broadway during the 1937-1938 season, this curiously satisfying comedy about death was dramatized by Mr. Osborn from the story by Lawrence Edward Watkin, and tells of an old man who chased death up a tree and held him there while he tried to find a suitable home for his grandson.

Widely acclaimed by critics, which in itself is unusual, "On Borrowed Time" has, perhaps, a more universal appeal than its contemporary plays, "Our Town" and "Shadow and Substance," which also dealt with a metaphysical subject.

Much credit should be given Mrs. Ralph L. Fitts who directed the performance for the verve with which the lines were read and for her choice in the selection of "actresses" who so ably adapted themselves to character. In addition to her rôle as directress, Mrs. Fitts read convincingly the difficult lines given to "Gramp." Equal credit, of course, goes to our other members taking part who included Mrs. Dewey R. Heetderks, Mrs. L. Paul Ralph, Mrs. Leon DeVel, Mrs. Lucien S. Griffith,

Mrs. Luther Carpenter and Mrs. William J. Butler, our president.

Following the reading of the play tea was served with Mrs. Torrence L. Reed and Mrs. Charles F. Ingersoll as hostesses. Mrs. John T. Hodgen and Mrs. P. L. Thompson presided at the tea table which was beautifully and appropriately arranged with the gay decorations of Old St. Nick. Also adding to the pleasure of the occasion was the presence of a large delegation from the Ottawa auxiliary.

On Friday, January 6, members of the Hygeia and Philanthropic committees were entertained at an open tea in the home of Mrs. Carl F. Snapp. The affair was called a "Visit to Persia" and the rooms were elaborately decorated in keeping with the home. Persian coffee and various kinds of oriental food were served. Co-chairmen are the committee heads, Mrs. Joseph C. Tiffany and Mrs. Wallace H. Steffensen.

JANE R. FRANTZ
Press Chairman.

Kalamazoo County

Covers were placed for one hundred and twenty-five at dinner at the Columbia Hotel on December 20, when members of the Woman's Auxiliary were guests of the Academy of Medicine. Dr. Homer Stryker, of the University Hospital of Ann Arbor, acted as toastmaster. Dr. Ralph B. Fast, newly elected president of the Academy spoke briefly. Mrs. F. M. Doyle, president of the Auxiliary, extended greetings to the Academy. She also told the aims of the Auxiliary and mentioned that just eleven years ago on the same date the Auxiliary was organized. Dr. F. T. Andrews spoke of the splendid work recently completed by Dr. Rush McNair in his book, "Medical Memoirs," which tells interesting personal reminiscences of fifty years of medical practice in Kalamazoo. Tribute was paid to Dr. McNair by the group.

Dr. B. I. Beverly, of Rush Medical College, then lectured on "Psychiatry of Children" which was intensely interesting.

A social evening followed with bingo, bridge and dancing as diversions.

(MRS. HUGO) BARBARA K. AACH
Publicity Chairman.

Doctors Get in Step

(Bay City Times)

The doctors of Michigan got in step with modern thought Sunday when the house of delegates of the state society voted in favor of cheap group medical service for the low-income families. There were indications earlier that they would oppose the plan, and insist on conditions being allowed to continue as they are.

If their present policy works out it is to be expected that sufficient hospital and medical care will be placed within the reach of all families with an income of \$1,500 a year or less. Necessity of this reform has long been recognized, but up to the present has been opposed by most groups of organized physicians, and even now is regarded with more or less hostility by the national organization.

The service, if and when it is put into effect, will be financed by group insurance, the details of which are being studied. It is expected that it will do much to improve Michigan health conditions and should relieve a million poor families of one of their economic nightmares, illness which they are not in a financial condition to combat.

This movement marks a cheering advance in the relations of this great profession with the public on which it is to be congratulated and applauded.

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**MICHIGAN'S DEPARTMENT
OF HEALTH**

DON W. GUDAKUNST, M.D., Commissioner
LANSING, MICHIGAN

THE HEALTH OF THE STATE IN 1938

A review of the health of Michigan during 1938 reveals many optimistic trends. The general death rate is down—the lowest in history with the exception of 1932 and 1933. The birth rate is up—the highest since 1930. The infant mortality rate is the lowest ever. The maternal mortality rate is equal to the all-time low record established in 1937.

These conclusions are based upon provisional statistics for the first ten months of 1938. During that period 41,707 deaths were reported compared to 44,819 during a similar period in 1937—a decline of approximately seven per cent. This means a death rate of 9.8 per 1,000 population, dropping from 10.6 the previous year. Births jumped from 76,435 last year to 80,590 during the first ten months of 1938. This means an excess of 38,883 births over deaths in that period.

The new all-time low infant mortality rate accounted for 3,564 infant deaths in 1938 compared with 3,673 in 1937. The provisional infant death rate this year is 44.2 deaths per 1,000 live births. The maternal mortality rate of 3.6 deaths of mothers per 1,000 live births is identical with that for 1937. There were 291 deaths of mothers from causes connected with childbirth this year.

As for the specific causes of death, the first three major causes including heart disease, cancer and apoplexy are continuing on the upswing, their combined mortality accounting for more than one-third of all deaths. All other major causes of death, however, show declining trends. Pneumonia, automobile and other accidents, tuberculosis and nephritis lead the way in this decline. Deaths from pneumonia dropped from 3,403 in 1937 to 2,271 this year. The concerted drive upon automobile accidents this year has brought results. Deaths from this cause dropped from 1,825 during the first ten months of 1937 to 1,139 this year—a saving of 686 lives. Michigan's population for the determination of 1938 rates is estimated at 5,100,000.

Outstanding developments in the activities of the Michigan Department of Health during 1938 for promoting the health of the state have included a marked expansion of public health services with the aid of federal funds, a reorganization of the administrative set-up of the department, the launching of a campaign for the amelioration of the insanitary conditions existing in many rural and resort areas of the state, and the stimulation of activities for the provision of more adequate medical care for persons unable to pay for such care. A venereal disease program has been shaped which provides free laboratory examinations for the diagnosis of these diseases and free drugs for the treatment of all cases of syphilis. Under the law requiring premarital examinations for venereal diseases which went into effect a little over a year ago, 674 cases of syphilis have been discovered. The department has made 33,582 free diagnostic tests for syphilis in its administration of this law.

Federal grants have made it possible to greatly expand maternal and child health protection services and to subsidize strong, full time local health departments. Two new county health departments were organized during the past year in Ingham and Muskegon counties. This makes a total of 58 coun-

ties now provided with such departments. In 1936 when federal funds first became available for this purpose, there were 22 county and district health departments; today there are 36, serving 60 per cent of the rural population. More than three-fourths of the total population of the state are now protected by full time health departments in urban and rural areas. It is through its advisory and supervisory activities in relation to these local health departments that the State Department of Health wields its greatest influence.

A concerted effort has been made to bring tuberculosis into the list of diseases that are no longer major causes of death. State-wide activities have been correlated and intensified for the location of early cases. Medical care has been made available for all cases regardless of ability to pay. Michigan laws were clarified and strengthened by the last legislature, thereby making it possible to provide prompt hospitalization. The state subsidy for county sanatoria has been doubled, thus relieving the burden of the poorer counties. Closer supervision has resulted in the improved administration of these sanatoria.

The Michigan Department of Health maintains one of the finest public health laboratories in the nation. During the year just closed more than 450,000 examinations for the diagnosis of communicable diseases were made free of charge for health officers and physicians. The department was able to aid greatly in bringing to a halt the extensive outbreak of smallpox which occurred during the early part of 1938. This was done by producing in the Biologic Products Division vaccine for more than 750,000 smallpox vaccinations within a period of ninety days. The same has been true in meeting the unusual outbreak of rabies during the past summer and fall. More than 60,000 doses of rabies

vaccine produced by the Department laboratories helped to prevent great loss of life from this cause. The laboratories, too, have completed a five year study of a vaccine for the prevention of whooping cough which has attracted national attention. Most favorable results have been reported through the use of this vaccine in preventing this frequently fatal disease of early childhood.

Particular attention has been devoted to pneumonia during 1938. A division of pneumonia control has been established in the department. Typing and serum distributing stations have been established throughout the state. Research over a period of three years finally resulted in 1938 in the state-wide free distribution of improved serum for the treatment of Type 1 and Type 2 pneumonia. Serum for the treatment of other types is now being developed. Hope for a vaccine for the prevention of pneumonia has been spurred by seemingly successful experiments reported during the past year.

Nearly three-quarters of the state's population are now served by public water supplies and sewerage systems inspected and approved by this department. There has been a four-fold increase in plans submitted for approval of the construction of sewage treatment and water purification plants. The insanitary conditions found in many rural areas, however, have been the source of extensive outbreaks of bacillary dysentery. Little has been done in the past to control the conditions causing this illness which tourists have begun to call the "Michigan disease." A thorough investigation of the causes of these intestinal infections which threaten to curtail the tourist and resort trade has been started during the past summer. General insanitary conditions such as those which contributed so largely to the extensive outbreak of Shiga dysentery in Shiawassee county last summer have been

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and will continue to be the object of attack by the state and local health departments.

DR. W. J. V. DEACON DIES

Dr. W. J. V. Deacon, director of the Bureau of Records and Statistics since it was first established in the Michigan Department of Health in 1921, died at his East Lansing home December 20, 1938. Dr. Deacon had been ill for three weeks. Death was caused by coronary occlusion and multiple coronary thrombosis.

Born in New York City October 27, 1868, Dr. Deacon had already established his reputation as a vital statistician when he came to the Michigan Department of Health in 1919. He came to Michigan from Kansas where he had been state registrar of vital statistics for the Kansas State Board of Health and assistant professor at the University of Kansas.

Dr. Deacon's efficient organization of Michigan's 8,250,000 vital records gained for this state a national reputation for the completeness and availability of its statistical information. Dr. Deacon was twice designated by the Secretary of State at Washington as a member of the International Commission on the Decennial Revision of the Nomenclature of Diseases. In 1928 he went to Texas to aid that state in organizing its registration system for admission to the federal registration area.

The many valuable statistical studies which Dr. Deacon made for numerous state and national publications were the results of his vision of the importance of vital records in shaping the course and testing the results of preventive medicine. Dr. Deacon was instrumental in the organization of the American Association of State Registration Executives and served as its first president. He was a fellow of the American Public Health Association

and had been chairman of the vital statistics section. He was also executive officer of the Michigan Public Health Association from 1927 to 1931, becoming its president in 1932.

At the time of his death, Dr. Deacon held the rank of lieutenant colonel in the army reserve. He will be buried beside his only son in Arlington National Cemetery.

RADIUM LOANS AVAILABLE TO MICHIGAN

Michigan hospitals, cancer clinics and medical centers are eligible to apply for the loan of radium from the National Cancer Institute which was established by congressional act August 5, 1937, with a \$700,000 annual appropriation. In order to coördinate the work of the National Cancer Institute with the state cancer control program applications for the loan of radium will be approved by the Michigan Department of Health.

Contracts for the loan of radium will be made for one year only, subject to renewal. Upon expiration of the contract, the radium must be returned to the National Cancer Institute in good condition in the same form and the same degree of radioactivity in which it was loaned. Prior to the shipment of radium, the applicant will be required to take out and deposit with the National Cancer Institute an insurance policy protecting the government against all loss or damage to the radium. No charge can be made a patient for the use of government owned radium. Preference must be given in the use of the radium to patients whose financial circumstances are such that they cannot, without depriving themselves of the necessities of life, pay from their own resources for the cost of the use of radium.

SUMMARY OF COMMUNICABLE DISEASE CASES IN 1938

Measles led all other communicable diseases in prevalence in 1938, according to case reports received by the Bureau of Records and Statistics. The measles outbreak of last year was the greatest in the history of the state, even outdistancing the 1935 outbreak. Last year 79,393 cases of measles were reported compared to 79,061 in 1935. The five-year mean for the state is 23,243 cases per year.

Pneumonia cases, on the other hand, tumbled in the opposite direction to a new low of 2,601 cases, compared with 4,590 in 1937. Tuberculosis cases totaled 6,263, compared with reports of 6,469 cases the previous year.

Diphtheria case reports dropped back to 619 in 1938 after rising to 842 the previous year. With the exception of the 614 cases reported in 1934, this was the lowest number of cases ever reported. Typhoid fever cases totaled 284, 39 of which occurred in one major outbreak. There were 241 cases of typhoid reported in 1937.

Whooping cough prevalence increased in 1938 on the basis of 14,513 case reports. The previous high total was reported in 1936 when 14,287 cases occurred.

The prevalence of other communicable diseases in 1938 on the basis of provisional reports is as follows: Scarlet fever, 18,303; smallpox, 274; meningitis, 69; poliomyelitis, 59; syphilis, 14,684; and gonorrhea, 7,046 cases.

MONTHLY MORTALITY REVIEW

Mortality reports for the first eleven months of 1938 compiled by the Bureau of Records and Statistics show a decline in total deaths from 48,922 in 1937 to 45,837 this year. Infant mortality, too, is down from 4,008 in 1937 to 3,920 in 1938. Maternal deaths slightly exceed last year's figures when an all-time low rate for this cause was set, but with the current increase in births, the 1938 maternal mortality rate will compare favorably. There were 302 maternal deaths last year compared to 315 this year. Births have increased from 83,873 in 1937 to this year's total of 87,947 for the eleven month period.

Comparative mortality figures for the major communicable diseases in 1937 and 1938 are indicated in the table below:

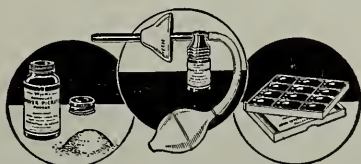
COMMUNICABLE DISEASE MORTALITY

Disease	1937-1938			
	Nov. 1938	Nov. 1937	11 Months 1938	11 Months 1937
Pneumonia	209	312	2,480	3,715
Tuberculosis	127	155	1,744	1,971
Typhoid Fever	4	4	23	29
Diphtheria	6	8	39	65
Whooping Cough...	6	7	107	121
Scarlet Fever.....	7	6	81	138
Measles	2	0	98	9
Smallpox	0	0	0	1
Meningitis	1	2	19	39
Poliomyelitis	1	2	9	50
Undulant Fever....	0	0	1	0
Syphilis	43	36	361	364
Gonorrhea	1	1	7	8

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SURGERY—General Courses One, Two, Three and Six Months; Two Weeks Intensive Course in Surgical Technique with practice on living tissue; Clinical Courses; Special Courses. Courses start every Monday.

GYNECOLOGY—Two Weeks Course starting February 27, 1939. Clinical and Personal Courses starting every week.

OBSTETRICS—Two Weeks Intensive Course starting March 13, 1939. Informal Course starting every week.

FRACTURES & TRAUMATIC SURGERY—Informal Course every week; Intensive Ten Day Course starting February 13, 1939.

OTOLARYNGOLOGY—Two Weeks Intensive Course starting April 10, 1939. Informal Course starting every week.

OPHTHALMOLOGY—Two Weeks Intensive Course starting April 24, 1939. Informal Course starting every week.

CYSTOSCOPY—Ten Day Practical Course rotary every two weeks.

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IN MEMORIAM

Dr. G. Warren Hyde

Dr. G. Warren Hyde, of Detroit, died on November 17, 1938. Dr. Hyde was born in El Paso, Texas, on November 11, 1898, and had lived in Detroit since 1904. He was graduated from the University of Michigan. During the war, he served under Dr. B. R. Shurly in Base Hospital Unit No. 36. He was a member of the psychological clinic of the Board of Education and was on the staff of Eloise, Harper and Shurly Hospitals. Dr. Hyde was President of the Detroit Dermatological Society, Certified by the American Board of Dermatology and Syphilology, American Academy of Dermatology, and the Central States Dermatological Society. He was a former chairman of the Section of Dermatology and Syphilology of the Michigan State Medical Society. He is survived by his wife, a daughter, Patricia, and son, Michael.

Dr. Frank Suggs

Dr. Frank Suggs was born in Little Rock, Arkansas, and was graduated from the Arkansas University Medical School in 1897. He served in the Medical Corps of the United States Army in Alaska and later in the Philippines. He was also a veteran of the Spanish-American and World Wars. Major Suggs was a surgeon and practiced from 1911 to 1926 in Highland Park, after which time he retired and lived in San Antonio, Texas, where he died on September 10, 1938.

Dr. Clarence B. Wasson

Dr. Clarence B. Wasson of Bellevue passed away on December 6, 1938, after an illness of ten years. He was born in 1865 in Cuba, New York, and was graduated from the Rochester College and Rochester Seminary of Rochester, New York, and from the Medical Department of the University of Michigan. Having previously become an ordained minister, he decided to go through medical school to become a medical missionary. In 1901 he located in Bellevue, where he practiced medicine until 1929. During this period he was very active in the work of the Baptist Church, as deacon, trustee, treasurer, teacher and Sunday School Superintendent. On September 5, a beautiful memorial window of art glass in the Baptist church was dedicated to Dr. Wasson. Surviving him are his wife and a sister, Mrs. Lucy F. Burlingame of Hinsdale, New York.

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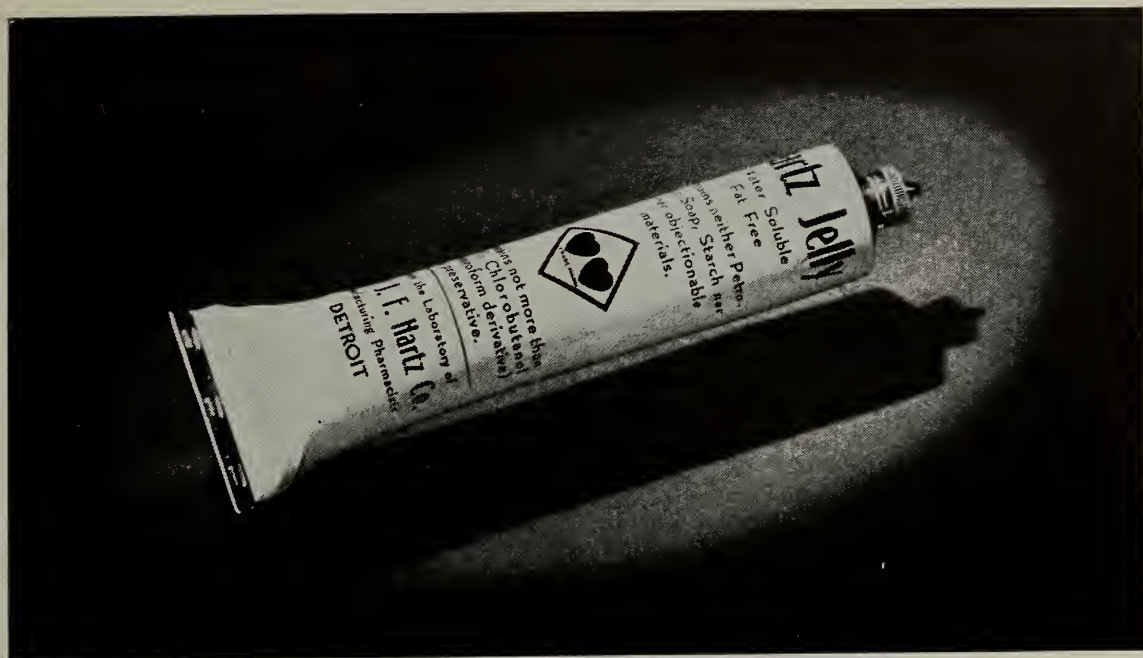
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Menominee County Medical Society
Muskegon County Medical Society
Ontonagon County Medical Society
Tuscola County Medical Society

The above county medical societies have paid 1939 dues for 100 per cent of their membership. Dues for 1939 are \$12.00 and are now payable. See your County Medical Society Secretary today and help make your society 100 per cent paid up for 1939.

The sympathy of their many friends is extended to Dr. L. J. Gariepy and brothers and sisters in the death of their father which occurred in Marine City early in January.

Your Federal Income Tax report must be filed by March 15, 1939. For a comprehensive digest of the physician's income tax, see the *Journal of the A.M.A.*, January 14, 1939, page 151.

James L. Lowe, president of the Butterworth Hospital Board of Trustees, recently created a fellowship providing not less than \$500.00 yearly for postgraduate study by physicians and surgeons of Butterworth Hospital staff.

President Luce has appointed Martin H. Hoffmann, M.D., of Eloise, Michigan, as representative of the Michigan State Medical Society to the Board of the Child Guidance Center in Ingham County.

Dr. L. S. Lipschutz was also appointed by President Luce to serve as a member of the Maternal Health Committee.

"On the Witness Stand," a booklet which gives enlightening and intelligent answers on the question of socialized medicine, et cetera, is available—free to anyone who will write for same to the Executive Office, 2020 Olds Tower, Lansing. Your patients might be interested in looking through this interesting brochure; write for a supply for your waiting room.

The Houghton-Baraga-Keweenaw County Medical Society, at its annual meeting, January 3, 1939, elected the following officers: President, Dr. J. R. Kirton, Calumet; president-elect, Dr. C. A. Cooper, Hancock; secretary-treasurer, Dr. Paul Sloan, Trimountain; delegate, Dr. G. M. Waldie; alternate, Dr. G. C. Stewart, Hancock; member Board of Ethics, Dr. A. D. Aldrich, Houghton; member of Council, Dr. W. T. S. Gregg, Calumet.

Business Is Too Good. On Sunday, January 22, five committees of the Michigan State Medical Society held meetings, almost simultaneously! The Special Committee on Group Hospitalization met in Flint, at 11 a. m.; the Advisory Committee to Woman's Auxiliary met in Saginaw at 11 a. m.; the Preventive Medicine Committee met in Detroit at 2 p. m.; the Legislative Committee met in Lansing at 2 p. m.; and the Committee on Scientific Work met in Lansing at 3 p. m.

The Alumni Association of the Wayne University College of Medicine, Detroit, is making elaborate preparations for the celebration next June of the seventieth anniversary of the founding of the Wayne University College of Medicine, and the fiftieth anniversary of the Alumni Association. Particulars of the coming celebration will appear each month in this JOURNAL.

New county medical societies secretaries have been elected for 1939 as follows:

E. B. Johnson, M.D., Allegan County
R. C. Conybeare, M.D., Berrien County
L. J. Hakala, M.D., Chippewa-Mackinac County
A. W. Strom, M.D., Hillsdale County
Paul Sloan, M.D., Houghton-Baraga-Keweenaw County
D. Bruce Wiley, M.D., Macomb County
R. Ostrander, M.D., Mason County
Dale E. Thomas, M.D., Saginaw County

The above supplements the list published in the January 1939 issue of THE JOURNAL.

Afflicted Child Commitments for month of December, 1938: Total cases, 2,250, of which 222 were sent to University Hospital and 2,028 were sent to miscellaneous local hospitals. From Wayne County, of the above, 46 went to University Hospital and 327 to miscellaneous local hospitals, total of 373.

Crippled Child Commitments: Total cases 227, of which 65 were sent to University Hospital and 162 to miscellaneous hospitals. From Wayne County, included above, 7 were sent to University Hospital and 40 to local hospitals, total of 47.

Ten more of your friends, who displayed their products and services at the 1938 Detroit Convention last September. When you have an order, don't forget your friends!

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M. & R. Dietetic Laboratories, Inc., Columbus, Ohio
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The Mennen Company, Newark, New Jersey
Merck & Company, Inc., Rahway, New Jersey
The Wm. S. Merrell Company, Cincinnati, Ohio
The C. V. Mosby Company, St. Louis, Missouri.

Four solid days of good fellowship and unequalled postgraduate opportunity are being arranged for you by the Committee on Scientific Work at the Seventy-Fourth Annual Convention which will be held in Grand Rapids. All General Assemblies will be held in the Civic Auditorium; the largest technical exhibit in the history of the State Society will be housed also in the Civic Auditorium. Forty of the most eminent speakers of the United States and Canada will bring the latest information on subjects covering all branches of the practice of medicine. Mark September 19, 20, 21, 22, 1939, on your calendar now.

After accidentally finding a number of unsuspected cases of tuberculosis in school teachers of Jackson, the Jackson County Medical Society, on January 17, unanimously passed a motion concerning the following recommendation:

"We recommend that each school teacher in Jackson County be required to furnish a health certificate from their family doctor, which certificate shall include a negative Kahn test and either a negative Mantoux test or a negative report on an x-ray of the chest, before their contract shall be renewed when the time for such renewal shall occur. The secretary, in the same motion, was instructed to mail a copy of this recommendation to the Board of Education of the City of Jackson, the State of

Michigan Board of Education, to the Michigan State Department of Health and to the Secretary of the Michigan State Medical Society."

* * *

Michigan physicians contributed articles to the *Journal of the American Medical Association* recently, as follows: "Plastic Surgery in Children: The Medical and Psychologic Aspects of Deformity," by Claire L. Straith, M.D., and E. Hoyt DeKleine, M.D., Detroit, issue of December 24; "Malignant Neoplasms of the Nasopharynx," by I. Jerome Hauser, M.D., Detroit, and Durwin H. Brownell, M.D., Ann Arbor, issue of December 31; "A New Interpretation of Hyperglycemia in Obese Middle Aged Persons," by L. H. Newburgh, M.D., and Jerome W. Conn, M.D., Ann Arbor, issue of January 7; and "Hypoglycemia" by Frederick A. Collier, M.D., and Howard C. Jackson, M.D., of Ann Arbor, issue of January 14.

* * *

The first January meeting of the Northern Michigan Medical Society was held on Thursday, January 12, 1939, at the Perry Hotel, Petoskey. Dr. Miller was asked by President Dean Burns to introduce Henry K. Ransom, Associate Professor of Surgery of the University of Michigan, who read a paper on the Surgery of the Stomach and Duodenum. Following Doctor Ransom's paper was a motion picture showing "The Effect of Ergotison on the Postpartum Uterus."

The next order of business was a report given by Dr. Saltonstall on the meeting of the delegates to the State Medical Society held in Detroit on January 8, 1939. A discussion of the report by the entire society followed. The meeting was adjourned at 10:00 p. m.

* * *

In recognition of research work done in the field of Internal Medicine, metabolic disorders and cardiology, Dr. Walter M. Bartlett of Benton Harbor was duly elected a Fellow of the American College of Physicians at the meeting of the Board of Regents of the College held at Philadelphia, on December 18, 1938. Dr. Bartlett received his certification as a qualified specialist from the American Board of Internal Medicine on June 11, 1938, following a four months' course in cardiology, taken in various clinics on the West Coast, and has since served as cardiologist on the staffs of Mercy Hospital, Benton Harbor, and the St. Joseph Sanitarium, St. Joseph. At a recent meeting of the Medical Division of the General Staff of Mercy Hospital, Dr. Bartlett was named Chairman and Dr. R. B. Howard, Benton Harbor, Secretary.

* * *

A Course in Anatomy

As announced in the January number of this JOURNAL, a course in anatomy will be given at the University of Michigan from February 13 to May 30, one afternoon and evening, each week from one to ten p. m., by Dr. Rollo E. McCotter. There will be an informal lecture the first part of the afternoon followed by a dissection of the part under discussion. A fee of twenty-five dollars is charged. Graduate or postgraduate credit can be arranged. For further information, address the Department of Postgraduate Medicine, University of Michigan, Ann Arbor, Michigan.

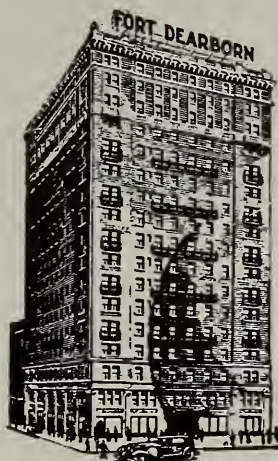
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Beaumont Foundation Lectures

The annual Beaumont Foundation Lectures under the auspices of the Wayne County Medical Society will be held in the lecture hall of the Art Institute on February 20 and 21. The lecturer is Dr. Jesse G. M. Bullowa of New York. Dr. Bullowa has done pioneer work in pneumonia therapy. The series of lectures for 1939 are as follows: "The

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Choice of a Remedy, with Particular Reference to the Pneumonias," and "The Method and Results of Serum Therapy in the Pneumococcic Pneumonias." As in former years, a cordial invitation is extended to every member of the Michigan State Medical Society to attend these lectures.

* * *

Women's Cancer Movement

One of the newest of the national health movements is the Women's Field Army of the American Society for the Control of Cancer, which was organized two years ago and at the present has active divisions in forty-five states. The work of the Women's Field Army, carried on in collaboration with the local state and county medical societies, is largely educational; that is, the spreading of information regarding the nature of cancer and how to recognize the earliest stages. Two simple things are urged for every person, namely, a complete physical examination and knowledge of cancer danger signals. The educational work of the Field Army is supplemented in some states by appropriations for the care of indigent cancer patients, as well as equipment for cancer clinics. The month of April has been designated Cancer Control Month, for the purpose of carrying on a campaign to enlist support. "Cancer is curable. Fight cancer with knowledge," is the ambitious slogan of this enterprising movement which is worthy of support.

* * *

The Michigan Pathological Society held its annual meeting at the University of Michigan Hospital, Ann Arbor, on December 10, 1938.

The scientific subject of the meeting was "Pathology of Drugs." Dr. O. M. Gruhzt, of Parke, Davis & Co., presented several interesting studies of the effect of drugs on experimental animals. Other members presented pathological material illustrating the effect of drugs upon the human subject. Of considerable interest was a case presented by Dr. S. E. Gould, of Eloise, demonstrating sulfanilamide as a cause of agranulocytic angina. Dr. C. I. Owen, Detroit, presented a case of mercury bichloride poisoning illustrating the pathological changes in the kidneys. Dr. Gabriel Steiner, Detroit, presented a case of myochrysin poisoning. Dr. C. H. Binford, Detroit, presented a case of carbon tetrachloride poisoning. Dr. Martha Madsen, Detroit, presented two cases of lipid pneumonia in infants. Dr. J. H. Ahronheim, Jackson, presented a case of strychnine poisoning. Dr. D. C. Beaver, Detroit, and Dr. M. J. Rueger, Detroit, presented a case of hydropic degeneration of the kidneys induced by concentrated intravenous sucrose injections. In the discussion of Dr. Gruhzt's material, Dr. Hartman brought out certain important correlations as he had observed them in human and experimental pathology in cases suffering from anoxemia induced by fever therapy.

The following officers were elected: President, Dr. O. W. Lohr; President-elect, Dr. W. L. Brosius; Secretary-Treasurer, Dr. D. C. Beaver; Councillor, Dr. O. A. Brines.

* * *

Physicians who have addressed county medical societies and lay groups during the past month or two:

Wilfrid Haughey, M.D., of Battle Creek spoke to Kiwanis Club of Kalamazoo on February 1, on "Michigan's Group Hospitalization and Medical Care Plan."

L. G. Christian, M.D., and Ralph Wadley, M.D., of Lansing, discussed the medical and surgical management of diseases of the gall bladder and liver before the Eaton County Medical Society in Charlotte on January 19. The same presentation was given before the St. Joseph County Medical Society on February 9.

Harold Miller, M.D., of Lansing, addressed a girls' assembly of 1,100 at Bay City Central High School on "Sex Hygiene" on January 11. In the evening, Dr. Miller addressed a public meeting of over 1,400 at the Nurses' Home of Mercy Hospital. These meetings were sponsored by the Woman's Auxiliary of the Bay County Medical Society.

F. J. Hodges, M.D., of Ann Arbor spoke before the Bay County Medical Society on January 11 on "Gastric Carcinoma."

C. E. Merritt, M.D., and W. G. Gamble, M.D., of Bay City addressed the Livingston County Medical Society on January 16 on the subject "The County Health Unit."

J. O. Goodsell, of the Michigan State Dental Society, spoke before the St. Clair Medical, Dental and Bar associations on January 10. A. J. MacKenzie, M.D., spoke on behalf of the County Medical Society, and Attorney Frank Wilson for the Bar Association.

Wilfrid Haughey, M.D., and H. F. Becker, M.D., of Battle Creek, spoke at Sturgis to the St. Joseph County Medical Society on January 12, on "Group Medical Care Plans."

B. R. Corbus, M.D., of Grand Rapids, President-Elect of the M.S.M.S., spoke to the Community Club of Cedar Springs on January 19 on Michigan's Group Medical Care Plans Versus Socialized Medicine.

C. A. Stimson, M.D., of Eaton Rapids, addressed the Clinton County Medical Society in St. Johns on January 31. His subject was "Proctology."

Roy H. Holmes, M.D., of Muskegon, spoke to the Bluffton School P.T.A. on November 9 on "Syphilis"; to the Bluffton Community Church Men's Club on December 6, and the Y's Men's Club International on December 14, on the same subject.

County Medical Society secretaries and other officers of the county and state medical societies attended the Secretaries' Conference in Lansing on January 15, in the number of 85. Those registering included Secretaries Florence Ames, M.D.; W. H. Barnum, M.D.; D. K. Barstow, M.D.; Otto O. Beck, M.D.; E. W. Blanchard, M.D.; D. C. Bloemendaal, M.D.; Wm. M. Brace, M.D.; J. H. Burley, M.D.; C. G. Clippert, M.D.; Thomas H. Cobb, M.D.; T. S. Conover, M.D.; R. C. Conybeare, M.D.; L. W. Gerstner, M.D.; C. L. Grant, M.D.; L. J. Hakala, M.D.; C. D. Hart, M.D.; Wilfred Haughey, M.D.; H. C. Hill, M.D.; R. J. Himmelberger, M.D.; T. Y. Ho, M.D.; B. I. Johnstone, M.D.; W. S. Jones, M.D.; C. E. Lemen, M.D.; A. F. Litzemberger, M.D.; John J. McCann, M.D.; H. R. Mooi, M.D.; M. R. Murphy, M.D.; R. A. Ostrander, M.D.; E. S. Parmenter, M.D.; Horace Wray Porter, M.D.; J. W. Rice, M.D.; D. R. Smith, M.D.; A. W. Strom, M.D.; Dale E. Thomas, M.D.; J. M. Whalen, M.D.; Thomas Wilensky, M.D.; D. Bruce Wiley, M.D.; and A. L. Ziliak, M.D.

Others present included Doctors B. R. Corbus, L. Fernald Foster, F. T. Andrews, W. E. Barstow, R. H. Holmes, V. M. Moore, officers and councilors of the State Society; Doctors L. M. Bogart, G. D. Bos, J. B. Bradley, R. M. Bradley, G. R. Bullen, L. G. Christian, L. W. Day, C. F. DeVries, B. H. Douglas, G. F. Fisher, L. A. Frenette, S. W. Hartwell, T. F. Heavenrich, B. A. Holm, D. A. Jamieson, O. G. Johnson, L. R. Keagle, J. W. Kemper, C. S. Kennedy, E. C. Long, G. L. McClellan, G. M. McDowell, E. G. McGavran, A. B. McGraw, Wm. B. McWilliams, H. A. Miller, F. B. Miner, Dean W. Myers, Constantine Oden, R. H. Pino, E. W. Schnoor, G. A. Sherman, L. M. Snyder, D. C. Stephens, C. A.

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Stimson, D. W. Thorup, L. C. Towne, Bert VanArk, J. D. VanSchoick, J. A. Wessinger, R. A. Wilcox.

Also present were Senators D. Hale Brake and Henry F. Shea; Representatives Dora Stockman and Douglas D. Tibbits; Health Commissioner Don W. Gudakunst; Dr. C. C. Young of the State Health Laboratories; M. R. Kinde, M.D., of the Kellogg Foundation; W. S. Ramsey, M.D., Secretary of the Michigan Crippled Children Commission; Miss Olive Sewell, R.N., Executive Secretary of the Michigan State Nurses Association, and Miss Anne Quigley, R.N.; J. O. Goodsell, D.D.S., C. J. Wright, D.D.S., and Executive Secretary H. C. Gerber, Jr., of the Michigan State Dental Society; John A. MacLellan, Executive Secretary of the Michigan Conference of Social Work; Seth Burwell of the State Insurance Department; Henry C. Black and A. E. Skaggs of Battle Creek; J. A. Bechtel, Executive Secretary and Mr. H. R. Lipson, of the Wayne County Medical Society, and Executive Secretary Wm. J. Burns of the State Society Executive Office.

* * *

ART TELLS HISTORY OF AMERICAN MEDICINE



"Beaumont and St. Martin"

"Beaumont and St. Martin" is the first of six large paintings in oil memorializing "Pioneers of American Medicine" which Artist Dean Cornwell will complete in the next few years. Others in the series are: Dr. Oliver Wendell Holmes, Dr. Ephraim McDowell, Dr. Crawford W. Long, Dr. William T. G. Morton, and Major Walter Reed, and one woman, Dorothea Lynde Dix, who, while not a physician, stimulated physicians to study insanity and feeble-mindedness.

Arrangements to supply physicians with free, full color reproductions of "Beaumont and St. Martin" without advertising, and suitable for framing, have been made with the owners, John Wyeth and Brother, 1118 Washington Street, Philadelphia.

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THE DOCTOR'S LIBRARY

Acknowledgement of all books received will be made in this column and this will be deemed by us a full compensation to those sending them. A selection will be made for review, as expedient.

CANCER AND DIET. By Frederick L. Hoffman, LL.D. Baltimore. The Williams and Wilkins Company, 1937.

The author, who is neither a physician nor a scientist, has been interested in the statistical and dietary aspect of cancer for years. His book, which contains 729 pages, is divided into four parts. The first is an interesting historical review of the development of cancer theories, particularly those relating to diet. The second is a study of modern diet compared to the diet of past generations. The third part, entitled "Cancer Metabolism," reviews the literature pertaining to food metabolism and that of certain organic and inorganic chemicals as well as enzymes, hormones and vitamins in cancer. The last and largest section is devoted to "Dietary Facts," consisting of a mass of unreliable information collected by questionnaires from cancer patients.

It is the author's conviction that cancer is produced by excessive nutrition and he presents what he believes to be the affirmative side of the argument. His inability to evaluate the authors and articles he reads results in verbosity. He begins with his conclusions, supports his opinions by extensive reading and presents nothing new regarding the cause of cancer. Admittedly an interesting book, it is not highly recommended to those whose time for reading is limited.

SCARLET FEVER. By George F. Dick, M.D., D.Sc., and Gladys Henry Dick, M.D., D.Sc., 149 pp., \$2.00 postpaid. Chicago: The Year Book Publishers, 1938.

The authors of this treatise have long been recognized as eminent authorities on the skin test for susceptibility to scarlet fever. In this book they have utilized their extensive experience in presenting a complete consideration of the subject. In the chapters devoted to the clinical aspects of the disease there are comprehensive discussions of the varieties of scarlet fever, complications, diagnosis and prognosis, treatment, skin tests, and of prophylaxis. The considerations of the preparation of scarlet fever toxin, specificity of the hemolytic streptococci, allergy, antibacterial immunity, local immunity, and oral immunity complete the story by presenting the laboratory aspects of the disease. The nice arrangement of these topics makes their data quickly available. The colored plates of the early scarlatinal rash, Pastia's lines, the strawberry and the raspberry tongue, the blanching test, the skin reactions and their interpretations, and of the specificity tests are unexcelled.

This monograph is a very practical work, because it is so detailed and at the same time so concise. The direct and lucid style with which these authors translate their wealth of experience into a text, recommends this book to whoever is concerned with any aspect of scarlet fever.

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FEBRUARY, 1939

Among Our Contributors

Dr. Franklin G. Ebaugh is a graduate of Johns Hopkins University, class of 1919. He is part time Director of the Division of Psychiatric Education, National Committee for Mental Hygiene and a member of the American Board of Psychiatry and Neurology and the Advisory Board of Medical Specialties.

* * *

Dr. John J. Engelfried has the following degrees from the University of Michigan: B.S., M.S.P.H., and D.P.H. He is an instructor in the Department of Pediatrics and Infant Diseases and has been associated with Dr. Cowie in research work for three years.

* * *

Dr. E. R. Schmidt received the degree of A.B. in 1913 at Wisconsin, and M.D. in 1916 at Washington. He was first Lieutenant, M.R.C., 1917-18; Captain, M.C., U.S.A., 1918-19; Commanding Officer, U.S.A. Base Hospital No. 11, in 1919. From 1921-22, he was Exchange Assistant at the Maria Hospital, Stockholm, Sweden; and from 1922-23, Exchange Assistant, at the Städtische Krankenhaus, Frankfurt-am-Main, Germany. Dr. Schmidt was a member and governor of the American College of Surgeons, is a member of the Western Surgical Association; German Surgical Congress; Wisconsin State Medical Society, and the American Surgical Association. He is a member of Nu Sigma Nu medical fraternity. Dr. Schmidt has been Professor of Surgery at the University of Wisconsin Medical School since 1926, as well as surgeon at the Wisconsin General Hospital.

* * *

Dr. Stanley J. Seeger was graduated from the Northwestern University Medical School in 1911, and received the degree of M.S. from Marquette University in 1936. He is a past-president of the Milwaukee County Medical Society, past-president of the Wisconsin State Medical Society, and past-president of the Alumni Association of the Mayo Foundation. At the present, Dr. Seeger is chief of staff of the Columbia Hospital and the Milwaukee Children's Hospital, and chairman of the Council on Industrial Health of the American Medical Association.

* * *

Dr. Donald S. Smith graduated from the University of Michigan in 1934. He served his internship at the University Hospital, Ann Arbor, and was Instructor in Internal Medicine there in 1936-38. He is an associate member of the American College of Physicians and Consultant Internist at Pontiac State Hospital. His practice is limited to internal medicine.

* * *

Dr. Kellogg Speed is a clinical professor of surgery at Rush Medical College, Chicago, and attending surgeon to the Presbyterian Hospital, Chicago. Dr. Speed is author of the textbook, "Fractures and Dislocations."

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MATERNAL HEALTH

From the Committee on Maternal Welfare of the Michigan State Medical Society

Maternal health may be defined as an achievement wherein women desirous of parenthood are able to conceive, give birth to healthy children, in reasonable numbers, and accomplish the same without impairment of mental or physical efficiency.

It is obvious that this desideratum can rarely be an accomplished fact, without the aid of intelligent obstetric supervision and management.

Maternal health presupposes a satisfactory hereditary and environment influence, and proper supervision of the newborn which should be continued throughout the stages of childhood and adolescence, and throughout the mating period.

Appropriate antenatal examination and advice should be given and at marriage every woman should avail herself of contraceptive information and treatment.

Marriage should be followed by supervision of the wife from the standpoint of maternal health and this should be continued throughout the whole reproductive life.

This broad conception of maternal health involves serious responsibilities upon the medical profession and upon the public.

It has been, and continues to be, the purpose of the Maternal Health Committee of this state to exert every effort to assist the doctors in the state to render good obstetric service, and to instruct the people to appreciate it.

Michigan has taken a foremost position in its Maternal Health Program.

Every County Medical Society in the state has a Committee on Maternal Health, and its duties and functions are, to become interested in a practical way, in all maternal health problems in their own county, and to cooperate with the state committee in its effort to help give the expectant mothers in Michigan an increasingly better service.

President Luce has increased the membership of our committee which now consists of six obstetricians, three pediatricians, and one psychiatrist. This broadens our duties and increases our responsibilities.

Our Committee needs, and earnestly solicits, the aid of all physicians in the state who do obstetric work, and it is particularly anxious to see every County Maternal Health Committee assuming responsibility toward solving local maternal health problems, and these problems are present in every community.

ALEXANDER M. CAMPBELL, M.D.

Chairman, Committee on Maternal Health, Michigan State Medical Society.

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THE JOURNAL

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SOLITARY CYST OF THE SPLEEN

Report of a Case

F. T. ANDREWS, M.D., Kalamazoo, Michigan
and
R. S. HARTER, M.D., Schoolcraft, Michigan

In discussing pathologic changes in the spleen, the writer is impressed by our meager knowledge of the physiological functions of this organ as well as the diseases which are primarily of the spleen. The reporting of a single case is justified only by its rarity for an intensive study of the literature brings to light less than one hundred cases of solitary cyst of the spleen. It may be of interest that a case was reported by Dr. Harold K. Shawan of Detroit, which together with this report constitutes two from the State of Michigan. Two cases have been reported in Kentucky. The remainder are scattered over the entire world.

According to Aristotle, the spleen in Grecian runners was removed for prolapse in order that their speed might be increased. This was done by incision through the left groin. Andral, in 1829, in an autopsy found the first reported case of cyst of the spleen; nearly fifty years lapsed before Pean, in 1867, removed the first cystic tumor of the spleen.

The classification of large non-parasitic splenic cysts (Boyd) is as follows: hydatid, dermoid, simple, hemorrhagic and serous. This classification is by structure and pathology and not according to cause.

Embryologically, the parenchyma of the spleen is entirely mesodermal in origin (Muller) and the capsule and trabeculae are mesothelial in origin, as are the sexual glands. This may give rise to the ancient idea that the splenectomized woman is unable to become pregnant which has been disproved in two cases, one patient who was delivered of a living child and at the time of writing was eight months pregnant for the second child. The other case was

delivered of a living and healthy child. The fact that the spleen becomes engorged during menstruation may account for the above mentioned fallacy.

The causes of splenic cysts are many and varied. Traumatism by direct violence seems the most probable. Lymphatic disturbance is another. Because in its journey through the lobules of the spleen, the splenic artery accumulates considerable lymphoid tissue within its adventitia, whereby it causes lymphatic disturbance and the spleen undergoes polycystic degeneration, we may therefore have a so-called wandering spleen with torsion of the pedicle, infarction, or thrombosis of the small vessels, resulting in hematic cysts; or, there may be a placement of embryonic tissue which, lodging in the spleen, may become cystic and thus form a true dermoid cyst.

The occurrence of this type of tumor is most frequent in women to about sixty-five per cent. In forty-seven cases occurring in females, the ages ran between

twenty and forty years, and ten occurred associated with pregnancy.

Diagnosis of this condition is usually confirmed by Roentgen ray, following the finding of the mass in the abdomen. The symptoms are most misleading. They may simulate those of pathological changes in every portion of the body by reason of mechanical pressure upon some organ connected with the abdominal cavity. The most prominent symptom is that of painful weight in the abdomen.

Respiratory changes from the upward growth produce pressure upon the diaphragm and cause pleuritic rubs, crepitation and often effusion, which might easily be mistaken for pleurisy with effusion. The stomach and pancreas may be involved to the extent of producing symptoms suggestive of carcinoma and ulcer of these organs. The kidney and bladder disturbances enter the picture with frequent micturition, nephritic changes and attacks of pain, which might be erroneously diagnosed as urinary calculus or Dietle's crisis. Pelvic organ manifestations are numerous. Circulatory upsets may be manifest in heart displacements, edema of the lower extremities and abdominal effusion caused by pressure on the inferior vena cava or left iliac vein, cirrhosis of the left lobe of the liver.

The treatment is obviously surgical, though medicine has been used. Large doses of iodine have been given, puncture by trocar and the aspiration of fluid, and injection of the capsule with three per cent phenol with caustic soda to remove the eschar of its envelope. Electro-puncture has also been employed. Cysts have been opened and the contents drained and the borders of the cysts sutured to the laparotomy wound. Some surgeons advise the removal of the cystic spleen through the posterior route, but recent text books favor the anterior incision.

The blood supply to the spleen is from the splenic artery, a branch of the celiac artery. This artery is remarkable not only for its large size in proportion to the amount of tissue which it supplies, but for the thickness of its walls. Thus the surgeon in splenectomy should be exceedingly careful to avoid premature opening or division of the large vessels contained in the gastro-splenic ligament and the spleno-renal ligament, because of the distortion of the re-

lationship of these vessels in the cystic growth, flooding of the operative field with blood may occur. Once these vessels are lost, it is exceedingly difficult to pick them up, particularly the splenic vein.

The formation of adhesions to various other organs, namely, the stomach, pancreas, colon, and kidneys, should be borne in mind and separation and ligation should be attended to early and carefully.

The authors wish to stress a part of the operation which has its attendant danger in the recovery of the patient. It is not particularly difficult to visualize a great gaping void, which has been created by the removal of this large mass, into which drop the displaced organs, the stomach and colon. The patient displays symptoms of obstruction and acute dilatation of the stomach with its attendant danger. This happened in our case and was cause for alarm for about two days.

Report of Case

Miss B., aged thirty-nine years, a laboratory worker, consulted us for abdominal pains, weakness, nervousness and loss of weight. She complained of soreness in the stomach and bowels which was worse when she lay down than when up and about. She had lost eight pounds in the last two weeks. She reported a "bad spell" last fall that lasted about six weeks. Her present trouble began three weeks before coming to our office. The abdominal pains, which came on suddenly and left suddenly, were sharp and cramp-like in character. Her bowels were regular. She had more or less nausea but did not vomit. Apparently the pain was not related to eating. Both arms and her right leg were numb a good deal of the time. She complained a good deal of gas in the stomach and bowels. The pain was not related to movements of gas. Breathing seemed to be painful. The patient did not sleep well and had not slept well for two years. She was hard of hearing which had been coming on for six years or more. Her deafness was worse during her nervous spells. Apart from mumps and measles, she had been well until her present illness.

About three years before seen by us, she was struck in the abdomen by the wheel of a car, which was stopped suddenly. She did not attach any importance to this injury at the time as it did not disable her.

The clinical laboratory examination revealed the following: hemoglobin—75 per cent, red cells—4,160,000, white cells—6,000, lymphocytes—40, neutrophils—60; Schilling—0-0-20-40. The Kahn test was negative and urinary examination revealed normal urine.

The x-ray report is as follows:

"Chest: Stereoscopic films were made of the chest in the postero-anterior direction with the patient erect. On these films one sees rather indefinitely a circular, linear shadow just below the left diaphragm. The diaphragm moved normally and there is no special elevation of the diaphragm. The heart and lung fields appear quite normal.

"Abdomen: A single film made of the abdomen shows the circular, linear shadow in the upper left abdomen. No other abnormality is seen.

"On this film the outline of the left kidney can be seen, apparently quite separate from the shadow seen above.

"Detail studies were then made of the peculiar shadow seen in the upper left abdomen. A single film was made with the patient supine. One sees a round shadow of apparently a cystic mass below the left diaphragm. There is considerable calcification scattered throughout the walls of the cyst. With the patient in expiration, the left diaphragm is very slightly higher than the right.

"The patient was then fluoroscoped carefully. The cystic mass could be seen. The diaphragm moved normally.

"The patient was then given barium by mouth and observed under the fluoroscope. It was seen at once that the mass in the upper left abdomen occupies almost all the space from the lateral chest wall to the spine. The upper end of the esophagus is displaced somewhat toward the right. The fundus of the stomach is displaced downward and forward, the cystic mass being posterior. Films were then made in the prone, supine and upright positions, showing the mass in the upper left abdomen. This mass is almost circular, about 18 cm. in diameter. The kidney appears to be displaced downward. One can almost identify the spleen lying below the mass.

The physical examination revealed a patient, underweight and the asthenic type. The average weight for the last five years was 112 pounds. Her present weight is 101 pounds. The blood pressure is systolic 110, diastolic 70. Apparently there is some thickening of the ear drums. The physical examination was otherwise negative, excepting the enlarged mass which may be palpated in the upper left abdominal quadrant. The mass was smooth and movable, yet it was difficult to determine its attachment.

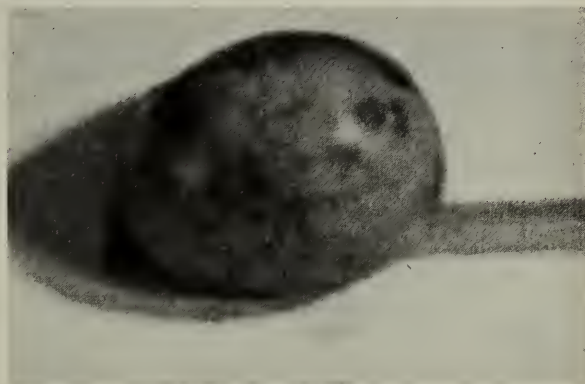
The patient was operated upon under ether anesthesia. The abdomen was opened with a left rectus incision from the intercostal angle of the ribs with an incision about 12 cm. in length. Upon opening the abdominal cavity, the shiny, glistening mass was observed. Numerous small adhesions to the various organs were noted and freed, and the cyst was delivered. The pedicle of the spleen with gastro-splenic ligament and renal splenic ligament were clamped and divided with double ligatures around stumps of both ligaments, and tumor amputated. The abdominal wall closed without drainage.

The patient recovered from anesthesia and operation in excellent condition. She ran a temperature of 101 degrees on the second day which subsided to normal on the sixth. On the fifth post-operative day, she developed alarming symptoms of abdominal distention, convulsive movement of the upper portion of the body, and extremities; she was irrational at times, and looked very ill. After consultation, an x-ray examination revealed a marked dilation of the stomach with gas. A loop of bowel was seen on the right side of the abdomen bending to cross the mid-line of the fourth lumbar vertebra. The bowel loop was likely the colon, but the examiner could not be sure of this.

An x-ray examination of the abdomen, a day later, showed much less gas in the stomach. An other x-ray examination of the abdomen made after the patient had been given a small amount of barium per rectum, showed the colon normally outlined. The position of the transverse colon corres-

ponded fairly well to the position of the gas distended loop of bowel described. In this film, there was no evidence of gas distended bowel.

The following after treatment was instituted: A Levine tube was inserted into the stomach and gastric lavage completed with instillation of magnesium sulphate, saturated solution 30 c.c., and hot stupes were applied to the abdomen; intravenous five per cent glucose 2,000 c.c. in saline was given.



Solitary cyst of the spleen.

Nine days after the operation, the patient was much improved. The bowel movements had become normal and vomiting had ceased after the second gastric lavage. There were no irrational or convulsive movements. The patient went on to normal convalescence and was discharged from the hospital on the sixteenth day with the operation wound completely healed and in excellent condition. She was seen from time to time when she had minor complaints of vague pains, first on the left side and then over the lower area on the right side. On December 1, 1938, she felt that she had fully recovered; she had no pain or abdominal distress and felt better than she had in ten years.

The pathology report by Dr. H. R. Prentice was as follows: "Gross examination: Ovoid specimen about 15x13x10.5 cm. consisting of a yellowish, smooth cyst, partly encapsulated by a rim of splenic tissue along one side, about 9 cm. long, 2.5 cm. across and 1.5 cm. thick. Weight of whole specimen about 2.5 lbs. The broad pedicle of splenic tissue described has been cut across.

"There is a plaque of calcium on the free side, about 13x7 cm. and other calcified plaques scattered through the wall. The lining is yellowish white with mushy brownish-yellow material adhering to it and there are a few calcified plaques extending into the lumen. The contents are caramel colored turbid fluid full of glistening flecks of cholesterol.

"There is a separate specimen from the tip of the spleen about 5x3x1.5 cm.

"Microscopic diagnosis: The splenic tissue is normal. No epithelium is to be found in the cyst lining. The wall merges with the fibrous capsule of the spleen. This origin can be clearly seen in some areas where the hypertrophic peri-vascular trabeculae join in the capsule. There is extensive atheromatous change throughout the wall and diffuse calcification of the lining."

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GLOMUS TUMOR*

A Report of Four Cases

MAURICE P. MEYERS, M.D.

DETROIT, MICHIGAN

The finding of four patients with glomus tumor during the past year calls attention to this frequent but little known neuro-vascular neoplasm of the extremity. This small tumor is a definite pathological entity and exhibits distinctive clinical findings characterized mainly by severe pain and tenderness. Operation results almost uniformly in cure.

Symptomatology

Pain is the most constant feature of a glomus tumor. It occurs in the small area at the site of the tumor, usually in the finger. This pain is described as exquisite, agonizing, burning, piercing or bursting. It usually grows progressively worse. It comes in paroxysms of several minutes to several hours. It may be only local, but usually also radiates for long distances up the arm, to the neck and even the thorax. Paroxysms are initiated by change in weather, exposure to cold or by pressure. The local tumor area, on touch, may act like a "trigger" zone in tic douloureux. Patients often go to extremes to protect themselves from the pressure of clothes or contact with cold. However, one of our patients complained of aggravation of pain on exposure to heat.

The tumor is only found in the extremity, and most commonly in the finger. It may be neither visible nor palpable, as was true of two of our cases. Then there will be a tiny point of exquisite tenderness which can be located by careful mapping with the point of a pencil. When a tumor is visible it appears as a bluish, purplish or reddish discoloration of the skin. It usually attains a size of 3-5 mm. in diameter but sometimes may grow as large as 3 cm. in diameter. It may elevate the skin slightly. The location of the tumor is most frequently beneath the nail. Then the discoloration may be seen through it. The tumor may hollow out a cavity in the phalanx underneath, or thin the overlying nail. Some patients have obtained temporary relief by shaving the nail away from the growth, or by drilling a hole in the nail as occurred in one of our cases.

Stout has observed that a relatively

high proportion of these tumors develop in Jews, a people known to be prone to disturbances in the sympathetic nervous system in the extremities. All our four patients were Jewish. The tumor may occur at the site of previous trauma. Of sixty-one cases reviewed by Stout forty-five were in the upper extremity and sixteen were in the lower. Of these, twenty-seven were sub-ungual, but only one under the toe-nail, the remaining twenty-six under the finger nail. Three of our cases occurred in the fingers, the fourth on the thigh. The age of onset has ranged from childhood to old age. Cases with multiple tumors have been recorded by Adair and others. In all, about 100 cases have been reported to date.

Case Reports

Case 1.—Mrs. E. P., a Jewish housewife, aged fifty-four, was seen March 2, 1937 by Dr. H. C. Saltzstein with the complaint of a painful tumor of the posterior surface of the right lower thigh of three years' duration. It had been removed two years ago but recurred six months later as a red-ened nodule. One year ago, another physician injected the area on three or four occasions with a (sclerosing?) solution. Since then, an aching pain has been present at the site of the tumor which is very sensitive to touch even by her clothes and bed sheets.

Examination of the posterior surface of the right lower thigh revealed an oval scar, one by one and one-half inches, with an irregular surface and a central raised nodule, one-quarter inch in diameter. This nodule was exquisitely tender even to very light touch. It showed no external color change from that of the normal skin. In view of the exquisite tenderness a clinical diagnosis of glomus tumor was made.

Operation was performed under local anesthesia,

*Presented for publication, April 13, 1938.

the area of scar being entirely excised. Even in preparing the skin for operation, the patient complained bitterly of the pain brought on by the light rubbing. The specimen on cross section through the middle of the raised nodule showed it to be a tumor

by circular injection surrounding the base of the right middle finger with a rubber band constrictor to control bleeding while exploring for the tumor. Two longitudinal lateral incisions were made up from the nail edges so the eponychial flap could be lifted up

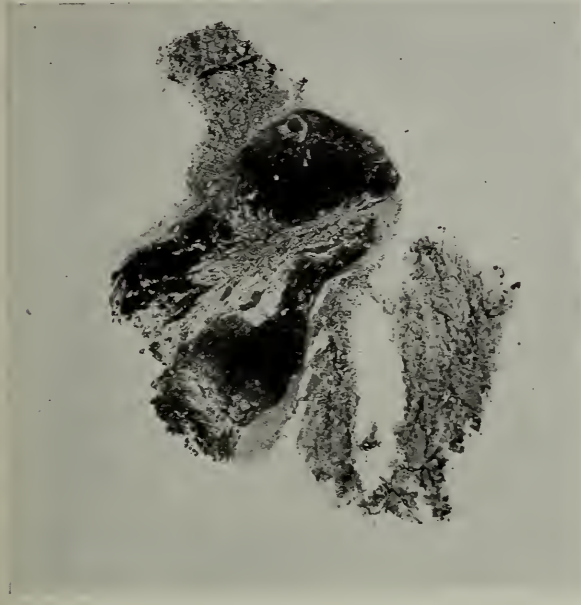


Fig. 1. Case 1. Glomus tumor just under epidermis of thigh. Shows encapsulation (magnification, 10).

of rose red color with the appearance of great vascularity.

Microscopic* examination showed an encapsulated glomus tumor under the epidermis consisting of a mass of typical large glomus cells in which were many vascular channels (Fig. 1).

The pain was immediately relieved and a check-up one year later showed no recurrence of the tumor with complete relief of symptoms.

Case 2.—Miss F. D., a Jewish stenographer, aged thirty-seven, was referred by Dr. L. Segar on October 18, 1937, with the complaint that for five years she suffered severe pain in the cuticle of the right middle finger which travelled up the hand and even to the elbow or shoulder if struck. The pain was brought on by change in weather, immersion in cold water, exposure to cold air, pressure on the finger or by being struck. Relief was obtained by warming the hand. The patient had been comfortable only in the summer for several weeks at a time. She had never suffered an injury to the finger and had never noticed any color change. An x-ray of the finger was taken two years ago by another physician who reported it to be normal.

Examination of the right middle finger showed no external change. However, there was an exquisitely tender spot in the mid-line of the eponychium about 3 mm. in diameter. Pressure on the nail was not painful. The temperature and color of this finger as well as the rest of the fingers was normal. The radial pulses were normally palpable. A review of the x-ray films showed a little cupping of the dorsal surface of the distal phalanx of the right middle finger as compared with the left side (Fig. 2). A clinical diagnosis of glomus tumor was made in view of the history and findings.

Operation was carried out under local anesthesia

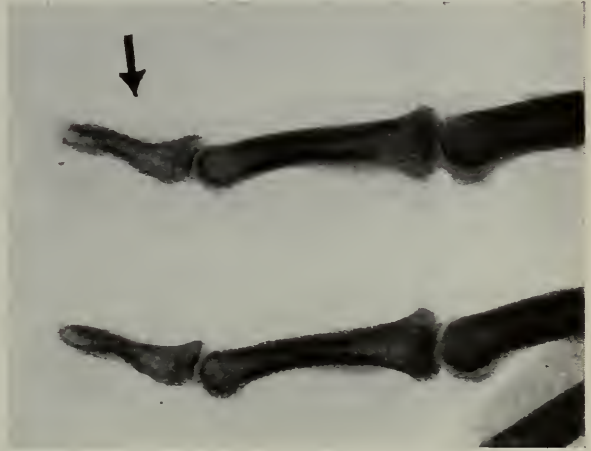


Fig. 2. Case 2. Roentgenograms. Comparison of terminal phalanx of involved right middle finger (above) with corresponding one of the other hand. Arrow points to the cupping of the dorsal aspect of the phalanx due to pressure from glomus tumor under the root of nail.

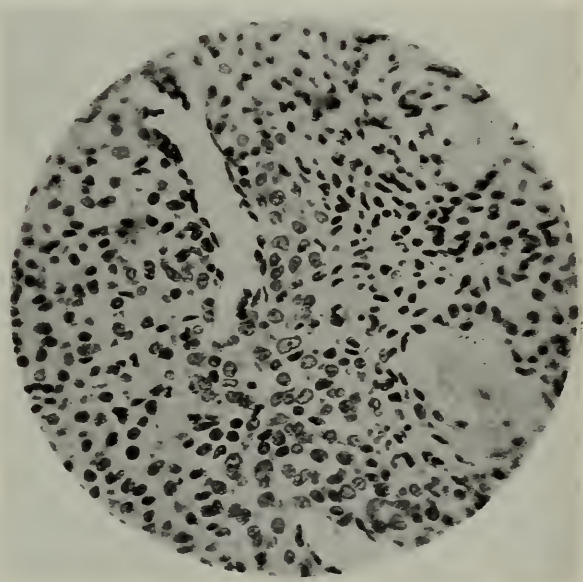


Fig. 3. Case 2. Glomus tumor with endothelial-lined blood vessel surrounded by characteristic glomus cells. Area of myxomatous degeneration in right lower portion of field (magnification, 900).

from the base of the nail. As nothing abnormal was seen, the proximal half of the nail was excised revealing a pure white nail matrix (blood supply constricted by rubber band). Incision through the mid-line of the matrix allowed a soft white tumor, three millimeters in diameter, to "pop up" into the wound as if it had been held under tension between the matrix and the phalanx. The tumor was carefully excised exposing the bony phalanx upon which it rested. The eponychial flap was then resutured in place over the cavity left by the excised tumor.

Microscopic examination revealed an encapsulated

*The pathologic diagnoses of all cases were made by Dr. P. F. Morse, Pathologist, Harper Hospital, Detroit.

mass of glomus cells with few vascular channels. Myxomatous changes were present in several areas. The diagnosis of glomus hemangioma with myxomatous changes was made (Fig. 3).

There was complete relief of pain immediately



Fig. 4. Popoff's Conception of the Digital Glomus: "Diagrammatic presentation of vascular arrangement and the glomus, as found in the ventral surface of the digit. It shows: (1) all the zones of the skin, including that occupied by the glomic apparatus; (2) the afferent artery of the glomus; (3) the coiled type of Sucquet-Hoyer canal, characterized by a thick wall; (4) the efferent part of the Sucquet-Hoyer canal, entering the primary collecting vein, with the latter appearing as a long wide ruffle encircling the glomus; (5) the relation of the primary collecting vein to other veins; (6) the system of preglomic arterioles supplying all the constituents of the glomus and emptying into the primary collecting vein, and (7) division of the periarterial nerve trunks, with branches going to the glomus. This diagram serves to explain arteriovenous and trophic disturbances caused by functional disability and organic destruction of either glomus or one of its constituents." (Copied from Popoff.)

and the patient went back to her office to work the next day. She was able to use a pencil against this finger one week later. A check-up after six months found the patient to have enjoyed continual relief from pain even during the cold months of winter since operation.

Case 3.—Miss M. A., a Jewish stenographer, aged twenty-seven, was seen December 3, 1937, with the complaint of pain in the right fourth finger of ten years' duration. She had been unable to typewrite for the past three years on account of a very small sensitive spot on the palmar surface of the finger end. Writing with a pencil was impossible last summer. The pain had been constant in the summer; intermittent in the winter. It varied in character, at times being sharp and at others a dull ache. Relief from pain was obtained by allowing cold water to run over the finger or by squeezing the finger proximal to the sensitive spot ("stopping the circulation," she said). Pain was brought on or made worse by striking the sensitive spot with anything, such as a bar of soap or a wash cloth. This gave a "terrible shock." The pain radiated up the forearm when severe, and spread to the other fingers as well. It was not influenced by impending change of weather, but was believed to be worse during her menstrual periods in the summer. The patient blushed easily and stated that she perspired freely in the summer.

Examination revealed a stout, fair-haired, young adult woman whose skin was fine in texture, moist and warm. Perspiration of the hands started immediately after the patient held them up for inspection.

Special attention was then given to the right fourth finger. There was no swelling, no tumor palpable, and no color change. There was, however, an exquisitely tender small area three millimeters diameter, just mesial and proximal to the central whorl of the palmar skin of the finger end. A clinical diagnosis of glomus tumor was made.

Operation was carried out under local anesthesia by circular injection surrounding the middle phalanx of the right fourth finger with a rubber band constrictor around the base of the finger. A longitudinal incision, one cm. in length, into the antero-medial aspect of the palmar surface of the finger end was made with its center over the tender area. A small tumor was found deeply in the fatty tissue on the palmar aspect of the distal phalanx. It was reddish-purple in color, encapsulated, kidney-shaped and measured 5 x 3 x 2 mm. It was excised and the wound closed.

Microscopic examination of the tumor showed an encapsulated mass of glomus cells with fibrous septa extending in from the periphery. Vascular channels were present. In addition, nerve sheath cells of the typical wavy type and collagen fibres were also demonstrated. The diagnosis of glomus hemangioma was made.

The patient has had relief of pain during the five months since the removal of the tumor with no evidence of recurrence.

Case 4.—Mr. W. A., a Jewish attorney, aged thirty-five, was first seen in December, 1936 with the complaint of pain and discoloration in small area under the nail of the right fourth finger of ten years' duration. The pain had become progressively worse since the onset. It radiated up to the knuckle usually and was excruciating in cold weather. It has been brought on by use of cold water to wash the hands, by impending change of weather to rain, snow or dampness when it has radiated up the arm and rarely even to the shoulder, by striking the nail accidentally which almost "knocks him out" and by buffing the nail in manicure. The discoloration has increased from pin-head size when first noted to three times that size. There were no vasomotor phenomena such as blanching, reddening or sweating. Four years ago he prevailed upon a dentist to drill a hole in the nail over the discoloration. They came upon a "sac" but did not remove it. No relief was obtained with this procedure.

On examining the right fourth finger a purplish discoloration, 2 x 5 mm., under the nail was seen and found to be exquisitely tender to pressure. A clinical diagnosis of glomus tumor was made.

Case 4 was the most typical case of the group clinically, and the patient was advised to have this lesion removed. However, he has not yet submitted himself for operation.

The Normal Digital Glomus

Masson, in studying two small tumors removed by his colleague, Barré, discovered the digital glomus in the peripheral vascular system. This structure, a coiled tuft of blood vessels occurring normally in great numbers in the extremities, is an arterio-venous anastomosis. Popoff, in 1934, demonstrated degenerative changes in the digital glomus in both diabetic and senile ar-

terio-sclerosis. He elaborated (Fig. 4) upon Masson's description of the digital glomus, describing it as consisting of (1) an afferent artery with cushion-like endotheliomuscular elevations directing the flow of blood through it; (2) a Sucquet-Hoyer canal, or arterio-venous anastomosis proper, which is coiled and has a thick wall lined by two or three rows of large endothelioid cells, surrounded by smooth muscle cells amidst which are the large epithelioid (glomus) cells of Masson; (3) the efferent part of the Sucquet-Hoyer canal enters the primary collecting vein which appears as a long, wide ruffle encircling the glomus; (4) a system of pre-glomic arterioles supplying all the constituents of the glomus and emptying into the primary collecting veins; (5) a division of the periarterial nerve trunks with branches going to the glomus; (6) a neuro-reticular zone of collagenous fibres and non-myelinated nerve fibrils around the canal (the so-called clear zone or expansion zone); and (7) the outer layer of lamellated collagenous tissue which appears as a long wide ruffle encircling structures of the cutis.

The digital glomi lie in the deep layers of the skin and their afferent arteries come off parallel to the surface from the skin vessels. The diameter of the digital glomus varies from 60 to 220 microns, the smaller ones being found in the nail beds. They are most numerous here. They occur mostly on the ventral surfaces of the hands and feet and in the nail beds, but probably also to a less extent throughout all the extremities. They vary in number from about 100 to 600 per square centimeter of surface.

The digital glomus is under the control of the vasomotor nerves. It serves to rapidly divert the flow of blood from the artery directly into the veins. Its most important function is the regulation of body temperature (Sir Thomas Lewis). This it does by opening or closing to increase or decrease dispersion of heat. It also serves to maintain or raise the temperature of the digits when exposed to cold—by diverting blood through the anastomotic vessels which have a highly developed surface area. The glomus also functions to relieve peripheral arterial pressure by diverting blood through anastomotic by-passages.

From the foregoing it will be seen that

the behaviour of the digital glomus in health and disease may well be a key to progress in the study of peripheral vascular disease and hypertension.

Pathology of Glomus Tumors

Usually no larger than a grain of rice, this is a minute benign tumor with major symptoms. Stout, in 1935, gave a detailed historical review of our knowledge of glomus tumors. The various names formerly given to it include: "painful subcutaneous tubercle (Wood, 1812)," "painful subcutaneous fibroma (Tellaux)," "painful subcutaneous angioma (Monod)," "sub-ungual perithelioma (Muller)," "colloid sarcoma (Heller)" and "angiosarcoma (Kolaczek)." The tumor was first accurately described as "tumor of the neuromyo-arterial glomus" or "glomic tumor" by Masson as recently as 1924. He showed that glomic tumors originate from the digital glomus and faithfully reproduce its structure.

Stout's description may be summarized as follows: the glomus tumor on cross section is seen to consist of a small tangled mass of blood-vessels enclosed within a capsule. Microscopically, the vessels are endothelial-lined and supported by a fine fibrous network. The rest of the wall is made up of peculiar cuboid or rounded "glomus" cells (usually referred to as epithelioid cells of Masson) and smooth muscle well differentiated or in an embryonal form in which the smooth muscle fibers are found within the cytoplasm of the epithelioid cells. The glomus cells are quite distinctive, having well defined cell outlines, accentuated by delicate collagen fibers which separate every cell from its neighbor. The cytoplasm is pale, sometimes vacuolated, which brings into sharp relief the nucleus, which is voluminous, centrally placed, globular or ovoid. Myelinated nerves are generally found in bundles in or near the capsule (can be seen in ordinary stains). Also present are numerous slender non-myelinated nerve fibers beneath the capsule and the epithelioid cells.

Differential Diagnosis

Other tumors which may be confused on account of their size or location are: neurofibromata, which are usually multiple and have no discoloration; sub-ungual fibromata, which are not so painful and have no discoloration; and melanoblastomata, which

are usually of short duration, are not painful or tender unless ulcerated, and which early usually show metastatic lesions. The other tumors (Pacinian body tumor, exostosis, papilloma, enchondroma, angio-keratoma, nevi, cysts) can be ruled out either by their lack of color or absence of exquisite pain and tenderness. None of these are as exquisitely painful as glomus tumors.

Treatment

Surgical removal or destruction of the tumor have been the successful forms of treatment carried out. However, if search is not careful, the tumor may be missed. The tumor is benign, but two cases are reported in which the tumor recurred. The nail has regenerated normally when it was removed.

Comments

The origin of the glomus tumors in the normal digital glomus is discussed. A brief pathological and clinical description is given. Four new cases are reported, demonstrating further their frequency of occurrence in the fingers and in Jewish women. The one man not yet operated upon presents the classical symptoms and clinical findings. The exquisite pain and localized tenderness can lead one to make a diagnosis without actually palpating a tumor or seeing a discoloration. When the characteristic discoloration and tenderness under the nail is seen, the lesion should be quickly recognized and removed. Of the four cases reported, two were neither palpable nor visible on physical examination and in both cases the characteristic symptoms were apparently unrecognized during their five and ten years' duration. Of the four cases, three occurred in females and one in a male. Of the four tumors, three were in the fingers and one

in the thigh. In two cases the tumor was sub-ungual, one male and one female. All the patients are members of the Jewish race and adults. The age at onset ranged from seventeen to fifty years. The duration of symptoms was at least three years, and even as long as ten years in two of the cases reported.

Glomus tumors are not always visible or palpable, as they are often very small and may be situated in the subcutaneous tissue. Operation on these patients is indicated, and their location can be determined by accurate search for the small point of exquisite tenderness which signifies their presence.

Summary

Four cases of glomus tumor are reported. The distressing, disabling nature of this small and recently better known tumor makes it of extreme importance in early recognition and surgical removal which, almost uniformly, gives complete relief of symptoms.

Since presenting this paper for publication the author has removed a glomus tumor from under the finger nail of an additional patient.

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THE MARE SERUM HORMONE IN THE TREATMENT OF CERTAIN ENDOCRINE DYSFUNCTIONS IN WOMEN

A Clinical Study

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Since the discovery of the pituitary-gonad relationship by Smith,¹² gonad stimulating substances have been prepared from a number of sources, including anterior pituitary gland, human pregnancy urine, castrate or menopausal urine and human placenta. The enormous physiological literature on this subject offers satisfactory evidence that these substances are capable of producing follicle stimulation, ovulation and corpus luteum formation in laboratory animals.

Because of its availability, the gonad stimulating fraction of pregnancy urine (prolan, antuitrin-S, et cetera) has received the most extensive clinical study. The numerous publications bearing on this subject have been recently reviewed by Jeffcoate,¹⁰ from which we conclude that these pituitary-like hormones from urine act differently in the human than in the laboratory animals. Apparently these substances do not produce follicle stimulation or luteinization in the human ovary. The work of Hamblen⁷ would suggest that extract of pregnancy urine (antuitrin-S) may produce cystic degeneration in mature or maturing follicles, which may explain its mode of action in the treatment of certain types of functional uterine bleeding.

Hamblen⁸ has studied human ovaries after administration of a gonadotropic fraction of anterior pituitary. He observed no histological changes which might be attributed to the hormones injected but points out the possibility that the dosage may have been too small.

Novak¹¹ has discussed the shortcomings of prolan preparations from urine as gonad stimulants in the treatment of amenorrhea, and has suggested that a true pituitary sex stimulation would be preferable in those amenorrheas where the ovaries are primarily at fault. He has also pointed out the fact that some cases of sterility and of functional uterine bleeding are associated with the failure of ovulation. It would appear that in such cases a hormone substance capable of producing ovulation would offer the most hopeful and logical form of therapy.

A new source of gonad stimulating hormone was discovered in 1930 by Cole and Hart⁴ in the blood of pregnant mares. The studies of Goss and Cole,⁶ Catchpole and Lyons,³ and Hamburger,⁹ have demonstrat-

ed that this hormone differs from that occurring in pregnancy urine and closely resembles extracts of the anterior pituitary gland in physiological properties. By the injection of pregnant mare serum these workers were successful in producing fertile ovulation in rats, ewes, sows and cows. This activity has received recognition in veterinary practice.

By fractionating pregnant mare plasma with acetone and with the use of isoelectric precipitation procedures, Cartland and Nelson² have obtained a highly purified gonadotropic fraction which is suitable for clinical study. Davis and Koff⁵ have reported the production of ovulation in women by the injection of this hormone prepared from mare serum. These results, together with the physiological literature, would indicate that the mare serum hormone may be capable of stimulating the normal process of ovulation and corpus luteum formation in the human. Bowes¹ has reported preliminary studies on five cases of menstrual dysfunction treated with mare serum hormone.

Our interest in this newly available hormone has led us to study its use in the treatment of certain cases of amenorrhea, functional uterine hemorrhage, and more specifically to some interference with the normal process of follicle development, ovulation, and corpus luteum formation. Thus, we have administered the mare serum hormone to determine if clinical improvement can be accomplished by restoration of normal ovarian function.

Experiments

The mare serum hormone used in these studies was prepared by the method of Cartland and Nelson.² This preparation was

supplied to us in the form of sterile hypodermic tablets (gonadogen) which constitutes a stable form of the hormone in a highly purified state, from which a fresh sterile solution can be readily prepared at the time of injection. The gonadogen used in these experiments is biologically standardized by subcutaneous injection on three successive days into twenty-one to twenty-three day old female rats. The rat unit is defined as the minimum dose which so administered will produce at autopsy ninety-six hours after the first injection a pair of ovaries weighing 65 milligrams, which is five times the weight of control ovaries.

Although the hormone preparation is substantially free of serum proteins, we have adopted the regular precaution of making an intradermal test for sensitivity before proceeding with the therapeutic injections.

The following brief case reports are amenorrhea cases that were treated with the pregnant mare serum hormone:

Case 1.—A twenty-eight-year old married woman complained of amenorrhea for a period of three months' duration occurring nine months after a normal pregnancy. Physical examination revealed a small uterus and small, hard ovaries. Regularity was established with 50 unit doses of gonadogen given intramuscularly twelve days before the expected period. Duration of flow at the time of this writing is five days.

Case 2.—A thirty-three year old married multiparous woman complained of menstruation at three-month intervals. B. M. R. was —32. Regularity was established with the use of 50 units of gonadogen given at monthly intervals for seven months along with thyroid therapy. At the time of writing, the patient is pregnant.

Case 3.—A twenty-two-year old married woman, whose menses began at 14 and occurred every thirty to thirty-three days with a seven-day flow, had a miscarriage three years ago at three months. Since then she has had only a scant brownish discharge at monthly intervals. At laparotomy after finding large, sclerotic ovaries with a very tough and thickened tunica, a resection was done. The patient was then given 50 units of gonadogen at monthly intervals. The cycle then became regular with normal flow.

Case 4.—A twenty-seven-year old married woman complained of a scant serous discharge for the past six months. Her previous menstrual cycle was a regular twenty-eight-day type which began at the age of thirteen. Two weeks after the first intramuscular injection of 50 units of gonadogen the menses lasted two days. The patient has now had eight 50 unit injections at monthly intervals and the cycle is of three to four days' duration with a normal flow.

Case 5.—A thirty-nine-year old married woman complained of amenorrhea for six months, following one pregnancy with spontaneous abortion. Gonadogen successfully regulated the cycle.

Case 6.—A thirty-two-year old married woman complained of menses occurring every two to three months. She had had no pregnancies. The periods were regulated at monthly intervals with 50 unit doses of gonadogen.

Case 7.—A thirty-four-year old married woman whose menses began at 14 with a regular thirty-day cycle complained of sixty-day periods since a Rubin test and curettement four years previously. She has been married eleven years with no pregnancies. Gonadogen in 50 unit doses did not alter the menses. The patient showed evidence of pituitary dysfunction and has been definitely diagnosed as Fröhlich's syndrome.

Case 8.—An eighteen-year old single girl whose menses began at fifteen with an irregular one-to-six-day flow complained of four to six-month periods of amenorrhea. Bimanual examination revealed no pelvic pathology. Gonadogen in 50 unit doses brought the periods to monthly intervals with a flow of two days' duration.

Case 9.—An eighteen-year old single girl whose menses began at 15 with an irregular flow of five to six days developed amenorrhea and periods of scanty flow for the past two years. She was well developed and about ten pounds overweight. On pelvic examination, the uterus and ovaries were small. Thyro-ovarian compound in 1936 did not improve the condition. Ovarian extract in 1936 gave similar results. The patient was then given antuitrin-S and theelin for four months, after which her periods became somewhat more regular but still scanty. Examination of the pelvis during the course of an appendectomy in 1938 showed small ovaries and a poorly developed uterus. Gonadogen was then started in 50 unit doses once a month. The periods became regular at monthly intervals with a two-day duration of flow.

Case 10.—A thirty-two-year old married woman with two children (youngest eight months) complained of amenorrhea and painful breasts for the past five months. The general impression was one of undernourishment and anemia. On pelvic examination the uterus was of normal size and in mid-position with ovaries of normal size. Periods previous to the last pregnancy were the regular twenty-eight-day type of four days' duration. Gonadogen in 50 unit doses given at monthly intervals for five months regulated the periods and the injections were discontinued. The patient returned four months later to report that her menses have been regular since.

Three cases of menorrhagia were treated with the pregnant mare serum hormone:

Case 1.—An eighteen-year old single girl whose menses began at thirteen complained for the past several months of a scant flow which has continued all month. By pelvic examination pregnancy was excluded. A normal uterus and normal sized ovaries were found. After 50 units of gonadogen at monthly intervals for eleven months, the quantity of flow increased but the irregularity persisted.

Case 2.—A thirty-year old single woman whose periods began at eleven and were never regular complained of a flow of two weeks' duration. On bimanual examination there were large ovaries and a normal sized uterus. This patient was given 10 injections of 50 unit doses at monthly intervals; the periods were reduced to a five to seven-day flow.

Case 3.—A twenty-nine-year old married woman whose menses began at fifteen and were always regular complained of a two-week flow for the past three periods. Pelvic examination was negative. Seven injections were given at monthly intervals. After the first injection the flow lasted three weeks; since then it has diminished to five days.

Discussion

The cases reported above were in no way selected but represent a cross-section of office patients complaining of menstrual disorders and in whom no gross pelvic pathology was found. Ten cases of amenorrhea and three cases of menorrhagia were subjected to this medication.

The work of Davis and Koff, in which they produced ovulation in the human female, was accomplished with the intravenous use of the hormone. In our series the intramuscular route was used with favorable results. Before administration, the patients were carefully tested for protein hypersensitivity.

It is perhaps of special interest to note that there were two cases in which amenorrhea was present for seven and twelve days, respectively, occurring for the first time. In each case, one injection of 40 units of gonadogen was sufficient to start menstruation.

Pregnant mare serum exhibits certain definite physiological differences from preparations of urinary prolan. The physiological studies on both animals and humans indicate that this hormone possesses gonadotropic properties closely resembling those of the anterior pituitary gland. In proper dosage many workers have shown that it is capable of stimulating normal ovarian function. The action in general is similar to that of the anticipated uses of the various prolan substances. Because of its availability the gonad-stimulating fraction of pregnancy urine (prolan) has received extensive clinical study. Jeffcoate¹⁰ has recently reviewed the enormous literature on the urinary prolans, from which we conclude that these substances act differently in the human than they do in laboratory animals and therefore do not fulfil the original hopes entertained for them as a true pituitary type of gonadotropic hormone. The new mare serum hormone seems to fulfil the desired requirement of an anterior pituitary-like gonadotropic substance.

Although we are unable to offer any remarks regarding the problem of sterility or the production of ovulation in women with

the use of this hormone, the recent work of Davis and Koff has disclosed some interesting facts in regard to the production of ovulation. Using Gonadogen, they have for the first time been able to demonstrate the artificial production of ovulation in women, followed by normal corpus luteum development. Using a single intravenous injection of 50 to 60 Upjohn units, they have been able to produce experimental ovulation in normal women within twenty-four to thirty-six hours following injection.

Summary

Although some of the results are negative, we think this is what one might expect in view of the fact that the exact cause of menstrual irregularities is difficult to diagnose.

It is possible that more consistent results will be obtained therapeutically with gonadogen when we find the specific type of cases in which ovarian dysfunction is the primary cause.

Although it is clearly impossible to draw any valid conclusions from such a small series of cases, the results, particularly in some of the amenorrheas, seem to be sufficiently hopeful to justify mention. In our series, favorable results were obtained with the intramuscular use of the pregnant mare serum hormone.

The fact that it is not possible to tell by clinical means alone the true nature of menstruation produced by any hormonal preparation points to the helpful aid of the curette in evaluating the endometrial changes that accompany menstrual dysfunction.

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GALLSTONE COLIC OR GASTRIC CRISIS

A Case Report

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A careful search in the Index Catalog of the Library of the Surgeon General's Office, United States Army, since 1915, fails to reveal any report of cases where the gastric crisis of *tabes dorsalis* has been confused with biliary colic due to calculi or vice versa. In *The Quarterly Cumulative Index Medicus* from 1926 and up to June 1938, no cases of a similar nature have been reported. E. Herskovitz reports a case in roentgenpraxis (Vol. 9:614-616, September, 1937), in which renal calculi provoked a pseudotabetic crisis. *The Quarterly Cumulative Index Medicus* refers to numerous case reports of duodenal and gastric ulcer which simulate gastric crises of *tabes dorsalis* and vice versa. Apparently there are patients with gastric crises of *tabes dorsalis* who at the same time are suffering from gall-bladder disease and gallstone colic. I should like to report one such case since it presents some unusual features.

The patient was a Swedish-American toolmaker, aged thirty-nine years, who entered Harper Hospital August 3, 1935. His family history was irrelevant. Eight years ago he had an attack of jaundice of eight days' duration associated with sharp epigastric pain which radiated to the right shoulder. Ten months and again six months ago he had similar attacks accompanied by belching, nausea and vomiting, but no jaundice. He denied venereal diseases. He had been a steady worker, and had smoked many cigarettes and occasionally drank whisky in moderate amounts. His bowels had been constipated. There had been moderate loss of weight.

He had not been feeling well for the past two weeks. Eight days ago he returned home from his regular work and after supper he was seized with violent pain in the epigastrium which began in the right upper quadrant and travelled toward the back, and was accompanied by nausea and vomiting. He was relieved only by injection of morphine. A dull constant pain remained after the acute attack had subsided. Since then he has had a number of attacks. Cathartics relieved him somewhat from the abdominal distress but made him more nauseated and caused vomiting. The vomitus was yellow and sour but never contained blood. He had had no melenas. The attacks had no relation to meals but were sometimes brought on by a drink of whisky.

Physical examination revealed a tall, well developed man, fairly well nourished, lying comfortably in bed. Constitutionally he was of the ulcer type. His pupils were equal, round, and reacted to light and accommodation. The sclerae were clear. The abdominal wall was firm and slightly tender to palpation, there were no palpable masses. The spleen appeared slightly enlarged to percussion. The reflexes were physiological. The

blood count revealed: 4,880,000 red cells, 6,800 white cells with 58 per cent polymorphonuclears. Serologic: Kahn negative, sugar 0.174 per cent. N.P.N. 33.3 mgs., icteric index 5. The urine was alkaline, 1.015 specific gravity with a trace of albumin, acetone 3+, no sugar and no casts.

Roentgenologic study revealed no organic lesion of the stomach, duodenum, small or large bowel.

Cholecystography showed a large gall bladder, of the pendulous type. It concentrated the dye faintly and exhibited some contractility after a fat meal. There were multiple shadows of negative density. Conclusions: Definite evidence of cholelithiasis.

Hospital course: Under spinal analgesia the patient was operated upon 8/9/35. The gall bladder was unusually large with the fundus dropping down toward the pelvis. It contained a quantity of small, black faceted calculi, of the same approximate size. No calculi were palpated in the cystic, hepatic or common ducts. Cholecystectomy was performed with double ligature of the cystic duct and closure without drainage.

The tissue report showed chronic cholecystitis and the post-operative convalescence was smooth. The patient was discharged on the tenth postoperative day.

Subsequent course: Fourteen days after the operation he was readmitted with the history of return of nausea and vomiting but no jaundice. There was no history of acute pain but rather a feeling of distress in the epigastrium. This was the first of six such episodes. The treatment during hospitalization was usually the same and consisted of adequate administration of parenteral fluids, solution of glucose and sedatives. The improvement was rapid and the hospitalization varied from one to six days. There were long periods during which the patient attended to his regular work in the factory with comparatively little discomfort. During the first three-month period following the operation, he gained twenty-five pounds of weight. Physical examination of the patient at each entry were essentially the same. At times, there was a noticeable icteric tint to the sclerae but pupillary and patellar reflexes were considerably active as on the first admittance. There was an occasional rise in the white blood count, the highest recorded was 11,000 with 77 per cent polymorphonuclears. Repeated urine exami-

nations failed to show the presence of bile. Three Kahn blood tests were reported negative. Van den Bergh direct and indirect were negative. The icteric index was normal. A repeated Roentgen examination revealed no lesions in the pyloric end of the stomach or in the duodenum to account for the patient's symptoms. During the last entry it was noted that the patient's patellar reflexes were rather sluggish and this prompted a spinal fluid examination. This revealed a Kahn 4+ positive, the gold curve was 1,233,322,100 and there were 14 white blood cells per 1 c.c. of spinal fluid with a slight increase in the globulin.

The patient was informed of the situation and returned to his usual work. After two weeks he was reported missing and a few days later was found dead. An autopsy was performed at the University Hospital at Ann Arbor. The report read:

"We found that the gall bladder had been removed and that the common duct was fully patent throughout and in excellent functional condition. No calculi were found in either the common duct or stump of the cystic duct and there was no evidence of any biliary obstruction. We felt that the results of the operation were exceedingly satisfactory. There was no evidence of gastric or duodenal ulcer. Putrefactive changes were too far advanced to permit a study of microscopic details of the spinal cord. The death was due to hanging and was undoubtedly suicidal. (Signed) John C. Bugher, Assistant Professor of Pathology."

Discussion

The clinical history in this case supported by Roentgen evidence and operative findings warranted a diagnosis of gall-bladder disease with cholelithiasis. The post-cholecystectomy syndrome appeared to be typical of the complications which occasionally are encountered in gall-bladder surgery. During

this patient's six re-entries the question presented itself whether or not there may have been a remaining common duct calculus or some interference with the sphincter mechanism (Oddi) causing a partial obstruction. Later, cholangitis was suspected. The evidence which would have indicated a secondary surgical procedure on the extra-hepatic biliary ducts was not definite. The repeated negative Kahn blood tests, the characteristic absence or weakness of knee-jerks and the specific Argyll-Robertson phenomenon usually associated with tabes dorsalis did not suggest a possible pre-ataxic stage of neuro-syphilis. It is known that gastric crisis may occur early in a case of tabes dorsalis before the usual signs of disease of the cord have manifested themselves definitely. In this case there was no history suggestive of either lightning pains or bladder disturbance. The autopsy report helped to clear up what seemed to be a complicated diagnostic problem. The serological findings in the spinal fluid proved that there was active neurosyphilitic disease present. Considering the final appearance of sluggish knee-jerks and the spinal fluid changes as well as the crises-like attacks after operation without any local findings in the bile ducts it is apparent that the diagnosis of tabes dorsalis was justified.

10 Peterboro Street

ADENOMA OF THE STOMACH

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The known tendency of carcinoma to develop upon an adenoma was brought to our attention in a case which appeared to be a benign lesion of the stomach on first examination but which eighteen months later showed radiologic evidence of malignant development. The first examination showed marked similarity between this case and two cases of adenoma of the stomach which were verified as such by pathologic section.

According to Kaufmann, "Adenomatous polyps are composed essentially of proliferated mucosal glands covered with a single layer of cylindrical epithelium with many goblet cells. Perfect uniformity of the epithelium does not exist; indeed these epithelial tumors show a certain degree of polymorphism." The majority of the cases are single, but they may be multiple. Adenomas do not disintegrate but may become

ulcerated by peptic digestion. Carcinoma developing upon an adenoma occurs less frequently in the stomach than it does in the intestines. It is also possible that an adenoma may grow in the presence of a carcinoma. Unlike carcinoma, adenomas do not penetrate the deep layers but grow from the mucosa into the stomach cavity. The

*The material for the paper was collected while associated with Patton, Evans & Herndon, and St. John's Hospital, Springfield, Illinois.

Appreciation is hereby expressed to Dr. O. L. Zelle for obtaining the post mortem in Case 3.

adenomatous growth does not cross the muscularis mucosæ.

The relationship of inflammatory changes to the formation of adenomatous polyps in other organs, especially the nose, has been

5. There may be a five-hour residue, although in this series there was no residue.

Clinical Findings

1. Anemia is one of the most constant



Fig. 1. Case 1.

cited. Mills believed that the lesion begins as a simple thickening of the mucous membrane.

X-ray Characteristics

The combination of fluoroscopic and roentgenological examination is essential. In one case films taken in one position failed to show the lesion; whereas films taken in another position gave definite evidence of the lesion. The presence of a tumor was very easily demonstrated fluoroscopically in another case by manipulation in different positions.

It is our belief that it is by careful x-ray examination that this diagnosis is made.

The principal x-ray signs are:

1. Filling defects, single or multiple, having vacuolated appearance. The lesion may be movable or fixed.

2. The majority of the lesions are found in the pyloric region. It is possible for a lesion with a long pedicle to extend into the duodenum and be mistaken for a duodenal lesion.

3. The size may vary from a pea to a fetal head.

4. The peristaltic waves are not interfered with on either curvature of the stomach.



Fig. 2. Case 2.

findings. The anemia is usually of the secondary type although cases have been recorded in which the characteristics were those of a primary anemia and the patients treated as such. Any obscure case of secondary anemia warrants an examination of the gastro-intestinal tract with the probability of a benign tumor in mind.

2. There may be symptoms of obstruction of the pylorus, usually of the intermittent type.

3. Intervals of freedom from pain have also been noted. These intervals are usually of variable length. The distress may or may not simulate an ulcer.

4. Achlorhydria is usually always present.

5. There may be a history of vomiting, hematemesis and diarrhea.

6. The tumor mass may occasionally be large enough to be palpated.

7. Muscular rigidity of the abdomen may be present.

8. Particles of tissue have been found in the gastric contents. This occurred in one of our cases.

9. The feces may contain occult blood.

ADENOMA OF THE STOMACH—HILT

Case 1.—A colored woman, H. L., aged forty-seven, consulted Dr. R. F. Herndon in February. She had been without symptoms of any sort until about one year ago when she had diarrhea of variable severity for three or four weeks. About two weeks later, she had an acute upset with nausea,

negative for occult blood. RBC 2,240,000; Hemoglobin 37 per cent (4-24-31). RBC 3,400,000; Hemoglobin 45 per cent (8-4-31). RBC 3,350,000 (9-2-31). Hemoglobin 44 per cent (8-3-31). Fluoroscopic examination demonstrated constant filling defect of the lesser curvature of the stomach. Roentgeno-



Fig. 3. Case 3. *a*, Original examination. *b*, Normal appearing stomach. Radiograph made in different positions than others. *c*, Eighteen months later.

vomiting and vertigo. These attacks lasted about a day or two, occurring about twice a week until six months ago when they ceased. For the last six months she has had a dull pain in the left upper quadrant, constant in character, which is increased by taking food. Food produces bloating. She spits up watery material which does not taste sour. She has some nausea but no vomiting. Appetite is good but patient is reluctant to eat.

Physical examination revealed no evidence of a mass in the abdomen. Pelvic and rectal examinations negative. Urine negative. Hemoglobin, 70 per cent. Red blood cells, 3,850,000. Kahn negative.

Gastric analysis showed an achlorhydria. The feces showed no macroscopic evidence of blood. Benzidine reaction for occult blood was positive.

A small piece of tissue about 1 by 1 by 0.3 cm. was found in the gastric analysis. On section, this appeared to be made up of epithelial cells which showed an orderly arrangement.

Fluoroscopic examination showed a filling defect in the pars media which was vaculated in appearance, constant, moveable and on changes in position could be obliterated. The peristaltic waves were normal on both curvatures of the stomach. The pylorus was regular in outline. The duodenal bulb was regular in outline. The stomach was empty at the end of five hours. Roentgenographic examination confirmed the fluoroscopic findings. The roentgenological diagnosis was tumor of the stomach, probably benign.

At operation by Dr. C. L. Patton, a mass about 6 by 2 cm., cauliflower-like in appearance, was found attached to the anterior stomach wall. This was removed. The attachment of the mass to the stomach was by a broad base but there was apparently no infiltration of the stomach wall beyond the tumor. Pathological section revealed an adenoma.

Six years later, this patient was alive and well with no symptoms or complaints referable to stomach, and weighed 160 pounds in comparison to 116 pounds at the first examination.

Case 2.—A white man, L. J., aged sixty-one, while in the hospital in February with an infection of the right knee complained of pain in the abdomen. Gastric analysis—achlorhydria. Urine negative. Feces

graphic examination confirmed the fluoroscopic findings. A diagnosis of tumor of the stomach, probably malignant, was made. There was an increasing anemia of the patient. In October, a blood transfusion was made. On October 3, an operation was performed. A freely moveable mass about seven by seven centimeters was found in the pyloric portion of the stomach. This was removed. A blood transfusion was given at the completion of the operation. The patient died October 7. Microscopic section revealed an adenoma of the stomach.

Case 3.—A white man, L. R., aged seventy, consulted Dr. R. F. Herndon. He had had no serious illness in the last fifty years. Five months ago, the patient discovered an epigastric lump which he believes has increased in size until it now feels about the size of a baseball. Constipation increased. Epigastric pain of intermittent frequency for about two years. Pain constant in character. Pain increases at night but never severe. Appetite good. Feels better after he eats. Occasional nausea but no vomiting. Weight 103 pounds.

Physical examination revealed a mass in the epigastrium. Rectal and prostatic examinations were negative. Urine negative. Stool microscopically negative. Benzidine reaction of feces positive for occult blood. Red blood cells 4,150,000. Hemoglobin, 80. Gastric analyses demonstrated achlorhydria.

Fluoroscopic study of the gastro-intestinal tract demonstrated a constant filling defect in the distal portion of the pars media. Peristaltic waves were normal on both curvatures of the stomach. No irregularities could be outlined on either curvature of the stomach. The distal portion of the pylorus and the duodenum were normal in outline. The stomach emptied at the end of four hours. Roentgenograms of the stomach confirmed the fluoroscopic observations except one film taken in a different position from the others was that of a normal stomach.

Roentgenologic diagnosis of benign tumor was made. Operation advised but refused.

Eighteen months later this patient was again examined. The patient's chief complaint was an increasing weakness. There was no loss in appetite but increase in nausea and vomiting. The tumor mass was larger, more easily palpable. Weight, 85 pounds. The patient was markedly jaundiced. Urine

REMOVAL OF BB SHOT WITH GIANT MAGNET—McCLELLAND

was negative. Kahn negative. Red blood count showed 2,700,000 cells and 28 per cent hemoglobin. Leukocytes were 8,150. Roentgenologic study demonstrated a marked filling defect in the stomach which extended from the distal portion of the pars media and included the pylorus. The vacuolated appearance of the former examination could not be demonstrated. The peristaltic waves did not pass beyond the distal portion of the pars media. The duodenal cap was normal. No obstruction to the passage of the barium meal was noted. The stomach was empty at five hours. A roentgenological diagnosis of carcinoma of the stomach was made. Two months later this patient died. Postmortem confirmed the diagnosis of adeno-carcinoma of the stomach.

Conclusions

1. Roentgenologic examination may be the only means of diagnosis.
2. Obscure cases of secondary anemia should be examined with the possibility of a benign gastric lesion, probably an adenoma.
3. Achlorhydria is usually present.
4. Pain in some form is usually present.
5. From the roentgenologic examination it is impossible to differentiate the type of

tumor; but in one case at the first examination the similarity to two proven cases of adenoma with the subsequent evidence of malignancy form a basis to conclude that in the beginning the lesion was benign and an adenoma.

6. All malignant appearing lesions of the stomach should be carefully considered as to the possibility of their being benign.

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REMOVAL OF BB SHOT WITH GIANT MAGNET*

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BB shot were formerly made by pouring molten lead into molds. Today the process is the same except molten steel is used, so that the shot are attracted by a magnet. Some of the BB shot on the market have been copper coated. This does not affect the action of the magnet on them. I desire to report two cases where the giant magnet was successfully used in removing BB shot from the body.

Case 1.—B. W., a girl aged thirteen, was playing in her own back yard. One hundred and fifty feet away a neighbor boy was shooting a BB air rifle. He saw the girl, took aim and fired. The shot penetrated the right eye-ball, entering the vitreous chamber behind the lens on the nasal side. X-ray examination six hours later showed the shot still in the globe 9 mm. back of the center of the cornea, 10 mm. to the temporal side of the vertical meridian and 11 mm. below horizontal meridian. The anterior chamber was filled with blood; the pupil dilated easily. Details of fundus were not made out. There was very little reaction in the eye. The sclera was still white. Under local anesthesia a giant magnet was used, when the shot was easily drawn out through the wound of entry. The patient was given typhoid vaccine for protein reaction. She left the hospital in four days. Subsequent examination showed the lense had not been injured and there

was no traumatic iritis. The vision was 20/20 with correction and has remained so for nine months, with no retina detachment.

Case 2.—H. N., a boy aged three, while playing with BB shot put one in his left ear. Two unsuccessful attempts were made to remove the shot with forceps which only pushed the shot further in and caused traumatism with hemorrhage. I saw the child about four hours later. Examination showed the external canal full of blood clot. When this was washed away, a very little of the surface of the shot could be seen because of swelling and edema in the external canal. Remembering that the shot was steel, removal was easily done under ether anesthesia with the giant magnet, after the external canal had been packed with alcohol cotton for twelve hours. The shot was lying against the drum membrane. No inflammatory reaction followed. These BB shot had a diameter of 3.5 mm. and weighed 350 mg.

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CESAREAN SECTION: 338 CONSECUTIVE CASES*

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During the period of ten years from 1928 to 1937, inclusive, there were confined at Harper Hospital 13,358 patients, among whom 338 were delivered by cesarean section, an incidence of one in forty, or 2.5 per cent. This is quite similar to the frequency of the operation in the city of New York, 1930-1932, where the city-wide incidence was 2.2 per cent, and to that in Philadelphia, 1931-1933, where abdominal section occurred in 2.6 per cent of all deliveries. In strictly hospital practice more frequent resort to cesarean section may be expected, as for instance at the Chicago Lying-In Hospital, Daily reports 5.6 per cent cesareans among 8,871 hospital deliveries. Furthermore, the incidence is likely to be higher in hospitals in which the work is largely in the hands of specialists in the field of obstetrics, due to the reference of cases specifically for abdominal delivery.

Type of Operation

TABLE I

Low Cervical	244— 72.2%
Classical	56— 16.6%
Porro	38— 11.2%
Total.....	338—100%

Table I shows an overwhelming preponderance of the low cervical operation over other types. This is probably due to the quite general advocacy of this operation, in recent years, as a safer procedure, particularly in infected or potentially infected cases. While I do not mean to infer that all low cervical operations were done for these indications, yet, it can be argued that if the procedure of choice in potentially infected patients the low section should be above reproach in clean cases. This method of reasoning undoubtedly accounts for its high occurrence (72.2 per cent) over a ten year period.

Fifty-six (16.6 per cent) classical operations were done in cases judged to be clean, among which were several cases of placenta previa occurring early in the series when this condition was thought to complicate the low operation.

The Porro technic with amputation of the uterus supravaginally was done thirty-eight times (11.2 per cent) in cases of doubtful cleanliness, for uterine fibromata, for sterilization, and abruptio placentæ.

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Indications

TABLE II

Disproportion	116
Previous Section	109
Placenta Previa	43
Cardiac	12
Abrupto Placenta	12
Nephritic Toxemia	9
Pre-eclampsia	6
Eclampsia	2
Miscellaneous	21
Total	338

By far the greatest number of operations were done for the indications "disproportion" and "previous section." A closer scrutiny of "disproportion" shows that in a very high percentage it was considered to be pelvic, in a few instances a combination of an oversized head and a small pelvis, and with rarity only a large head without engagement.

Previous section accounted for 109 cases or nearly one-third of the total. In many instances the indication for the first section was permanent. Nevertheless, we at Harper Hospital apparently believe that the dictum "once a cesarean always a cesarean" applies, and follow our belief in practice. Whether or not we are correct in our belief may be debated, but in our defense let it be said that there was no mortality in the 109 cases operated with "previous section" charted as the indication.

Cesarean section was done forty-three times for placenta previa, in patients who had had adequate prenatal supervision, in relatively good condition, and either not in labor or very early in labor. There was no mortality in this group.

It is well known, and quite universally conceded, that the treatment of placenta previa should depend to a great extent upon the condition of the patient when first seen.

For this reason patients in poor condition, well advanced in labor, particularly if they be multiparæ, with the marginal or lateral varieties, are safer if treated by more conservative methods. The more so if ill advised vaginal examination or tamponade has been done. On the other hand, patients seen from the first bleeding, not in labor or early in labor, particularly if they be primiparæ, without vaginal manipulation, can be safely delivered by cesarean section. The value of blood transfusion in these cases is so well known as to need no comment.

Cardiac indications were present in twelve cases with one post-operative death. In advising cesarean section as a routine for the pregnant cardiac patient, it is my opinion that we are on strongly debatable ground. In recent years there has come to be a better understanding of heart disease, particularly from the functional aspect, and better coöperation between the internist and the obstetrician. Formerly the internist with the idea of "saving the patient the strain of labor" has all too frequently advised cesarean section as a means to this end, and this advice the obstetrician has been all too eager to accept. This has resulted in ill-advised operations in patients with broken compensation, with unnecessary deaths charged to cesarean section. The majority of pregnant women with heart disease can be delivered from below, often by forceps to prevent straining in the second stage, with far less risk, provided they have adequate prenatal cardiac supervision. Nor can we agree with the argument that abdominal section is preferable because it offers the opportunity for sterilization. The problem of pregnancy may never again present itself if adequate birth control advice is given. If it does, pregnancy can then be interrupted in its early stage and sterilization done with a minimum of risk.

It is agreed that the occasional cardiac woman should be delivered by cesarean section. These few cases are composed for the most part of those women whose decompensation has been relieved, and who carry on to term, or near term, and again show evidence, in spite of treatment, of decompensating before labor ensues; and of the cardiac with obstruction to labor, as in pelvic contraction, or obstructing fibroids.

Abruptio placentæ was the indication for section in twelve instances. There were two deaths in this group, one from shock and hemorrhage, and one from peritonitis. Little comment is necessary on the treatment in this group. We believe that many cases with this major complication will continue to be treated by cesarean section as the procedure of choice, inasmuch as the behavior of the uterine musculature is unpredictable even, at times, with the abdomen open.

The toxemias furnished indication for seventeen cases, nine of which were nephritic, six pre-eclamptic, and two eclamptic, occurring in the earlier years covered in this report. Three deaths resulted, all from toxemia rather than from operation. As a matter of record it should be stated that in one of the eclamptics a complicating factor was placenta previa, in a primiparous patient not in labor. The literature and our own personal experience give ample proof that no worse results have been obtained in the treatment of the toxemias than by the routine resort to cesarean section, unless it be by the use of accouchement forcé. In our opinion section should be limited to the rapidly fulminating pre-eclamptics, which are few if the cases are under proper prenatal supervision.

For *miscellaneous indications* twenty-one cases were sectioned with no deaths. Uterine fibroids, large ventral hernia, large echinococcus cyst of the ovary, double uterus, elderly primipara, all furnished cases. In addition multiple indications were found in a number of cases.

Mortality—Maternal

In the series of 338 cases, eight died, and absolute rate of 2.36 per cent. In trying to evaluate the danger of the operative procedure itself it is seen that the cause of death was not surgical in four cases, viz., one with heart failure, and three from toxemia, leaving four surgical deaths or a net rate of 1.18 per cent. Also in this group of 338 there is a consecutive series of 134 without mortality, and a group of 164 clean cases, without vaginal examination, with intact membranes, not in labor or early in labor (comparable to the usual clean surgical operation), with one death, or .61 per cent.

It would therefore seem that cesarean

section in Detroit carries with it no more risk than the usual clean surgical case, provided care is used to eliminate cases with doubtful indications or with contraindications to abdominal delivery.

In 1925 Welz reported a maternal mor-

Morbidity

The American Committee on Maternal Welfare has a criterion for estimation of morbidity, viz., a temperature of 100.4 degrees or higher on any two postpartum days exclusive of the first twenty-four hours,

TABLE III

Case	Age	Para	Indication	Cause of Death
1	28	I	Aortic and mitral insufficiency Class III	Myocardial failure
2	26	I	Abruptio placentæ	Peritonitis
3	27	II	Abruptio placentæ	Hemorrhage and shock
4	28	I	Nephritic toxemia	Toxemia, 5th day
5	27	I	Pre-eclampsia	Toxemia, 5th day
6	39	I	Pre-eclampsia	Toxemia, 3rd day
7	35	II	Contracted pelvis	Peritonitis, 5th day
8	22	I	Contracted pelvis	Septicemia, 13th day

tality of 13 per cent for cesarean section in this city. Five years later (1930) I was able to show a reduction in this rate to 4.43 per cent. In the present series including the years 1928 to 1937, the absolute rate at Harper Hospital was 2.36 per cent. Inasmuch as four deaths, early in the series, followed sections for indications which in the light of present knowledge we now believe to be questionable, and because death occurred as the result of these complications and not as a sequel of the operation, we may be able to predict a still further lowering of the mortality rate. (Net rate 1.18 per cent.)

Mortality—Fetal

TABLE IV

Monstrosity	2
Diabetes (mother)	3
Cerebral hemorrhage	1
Prematurity	6
Thymic	1
Congenital atelectasis	2
Ruptured uterus	1
Abruptio placentæ	4
Hemorrhagic disease	1
Unknown	8
Gross fetal mortality.....	29—8.5%
Net fetal mortality.....	16—4.7%

A total of twenty-nine infants did not survive, a gross mortality rate of 8.5 per cent. If deductions are made for nonviable prematures, monstrosities, and infants already dead on admission (ruptured uterus one, abruptio placentæ four, sixteen deaths, or 4.7 per cent, is the net rate.

with temperature readings at least four times daily, which has been quite generally accepted in this country. For our purposes we have used a somewhat more strict measure and have classified as morbid any patient with a temperature of 100.4 or higher at any one reading exclusive of the first twenty-four hours. By this criterion 193 patients were morbid, or 57 per cent. The difficulties attending positive and accurate diagnosis of causes of puerperal morbidity, particularly when mild in character, are well known to all obstetricians. As well as this could be done is shown in Table V. One hundred sixty cases having low grade temperature for periods not exceeding three days were classified as puerperal endometritis. It is possible that a number of these temperatures if occurring after operations in patients who were not pregnant, would be said to be "operative reactions." Two definite cases of peritonitis occurred, both of whom died. Of the entire 193 patients only thirty-three were morbid four days or more by our standard. It is interesting that there is no case in which breast complications were considered as a cause of morbidity.

TABLE V

Endometritis	160
Sepsis	11
Wound abscess	5
Parametritis	2
Peritonitis	2
Pneumonia	2
Pyelitis	2
Phlebitis	1
Retained membranes	1
Cause unknown	7
Total	193

Further analysis shows that of the cases with ruptured membranes seventy-three per cent were morbid as compared to 55 per cent in cases with unruptured membranes.

A study of morbidity in relation to type of operation in cases with unruptured membranes shows that with the low cervical operation 51 per cent were morbid and with the classical operation 53 per cent. For the Porro operation the morbidity was 60 per cent. This would seem to show that there is very little difference, so far as morbidity is concerned, for cases with unruptured membranes, in the results of the two types of operation. Unfortunately a comparison of results with the low cervical and classical sections in cases with ruptured membranes is not available, as all in this group were done by the low cervical operation.

In attempting to discover any differences in the morbidity rates for the two types of operations when the patient was in labor when sectioned we find that with the low cervical operation 50 per cent were morbid and with the classical operation 60 per cent were morbid. We were able to find no definite relation between the length of labor prior to operation and the number of days of morbidity.

A comparison of the average morbid days shows three and one-third days for the low cervical, three and three-fourths for the classical, and three and one-half for the Porro operation.

Summary

An analysis of 338 cesarean sections done during a period of ten years at Harper Hospital shows a marked tendency toward the low cervical operation as the procedure of choice.

If results in so far as mortality is concerned for the city of Detroit can be interpreted in terms of those at a representative

hospital, the rate of 13 per cent reported for 1925 has been greatly reduced (2.36 per cent Harper) and still further reduction seems possible. A series of 134 consecutive cases without mortality, and a series of 164 "clean" cases with one death (.61 per cent), with comparable results from many other hospitals, shows that, with proper selection of cases, risk from cesarean section is no greater than that from other clean abdominal operations.

By a very rigid standard there is little difference in morbidity in clean cases not in labor and with unruptured membranes, between the low cervical and classical operations. For cases in labor and with ruptured membranes the low operation is the procedure of choice. The average duration of morbidity is less with the low cervical operation.

Deaths occurred in four instances from causes not connected with operation and serve to emphasize the dangers in cardiacs and in patients with toxemia.

Selected cases of placenta previa were sectioned in 43 instances without maternal mortality and with six fetal deaths from prematurity, which is as good a maternal result, and probably a better fetal death rate than could have been obtained by more conservative measures.

The large number of patients for whom "previous section" was the indication for cesarean should emphasize the responsibility of the obstetrician advising the *first* section.

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AN IMPROVED NEEDLE FOR INTRAVENOUS THERAPY

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Since the introduction of Salvarsan, intravenous therapy has gradually come into general use. This has undoubtedly been due to the fact that a more definite and rapid effect of the drug can thus be had, than when administered orally.

As a result of extensive research work carried on during past years in various private and commercial laboratories, a large number of therapeutic agents are now available for intravenous use, a factor responsible to some extent for the growing popularity of the method.

Formerly, direct exposure of the vein was considered necessary in order to properly enter its lumen and in turn prevent infiltration of adjacent tissues. But, as infection often followed and scars formed in situ, this method has gradually been abandoned, except for blood transfusions and occasional massive injection. This is especially true when frequent injections are advisable.

The method of fixation of the vein with a cambric needle has also fallen into disrepute. As a result of improvement in technic, the needle can now be inserted into the lumen of the vein with comparative ease and certainty, thus removing the former danger of infection, scars, and pain caused by extravascular infiltration.

The experienced doctor encounters little or no trouble in its performance, but he must develop a technic suitable for the purpose. Unfortunately some never master the art, and their patients continue to have swollen arms. With a proper tourniquet in place, a peculiar sensation of a "give" is experienced when the needle enters the lumen. Without being able to detect or properly interpret this sensation, the needle may pass outside the wall of the vein or pass through both anterior or posterior wall, and not remain in the lumen. Absence of blood in the syringe barrel following aspiration is an indication of failure which must be corrected before the operation is continued.

Equally important as manual dexterity is the selection of a proper needle. Needles varying from one-third to one inch, and from twenty to twenty-seven gage, should be kept on hand, always selecting the smallest gage suitable for each case. Too often too large a needle is responsible for failure. Except when a large quantity of a heavy fluid is to be given, I find the twenty-seven gage



Fig. 1. This shows the advantage of the eccentric needle with syringe as compared with the older type for intravenous therapy. Note angle at which each penetrates the skin and enters vein.

most suitable, as it causes less trauma and incidentally less pain to the patient.

The needle point should be sharp and of correct angle. These are frequently not found on the average hospital tray, not because of indifference on the part of the service room, but mainly because standardization of intravenous technic has never been properly emphasized.

I have long felt the need for improvement in intravenous needles. Several years ago, I designed a needle for intradermal use, consisting of a barrel three-fourths of a centimeter in length on a beveled shoulder, which permitted the needle to be promiscuously inserted into the skin with a skid-like manner. Its success in the intradermal field furthered the idea that the same principle could be applied to the needle for intravenous use. This resulted in the construction of a similar needle (Fig. 1) with a longer barrel which, when used with an eccentric syringe, has proven to be very satisfactory for the purpose intended. It insures an easier and more accurate entrance into the lumen of the vein, as it maintains a proper angle, and the position of the point is always constant, thus minimizing the possibility of trauma to the vein wall or infiltration of surrounding tissues.

ONE YEAR OF OCCUPATIONAL DISEASE REPORTING IN MICHIGAN

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The first year of occupational disease reporting under the amended occupational disease reporting law* was brought to a close on November 1, 1938. This law provides that every physician, hospital superintendent or clinic registrar shall report to the State Health Department any case of occupational disease within ten days of its recognition. A total of 1,193 reports were received during the year, 1,008 of which were accepted as representing true cases of occupational diseases.

This is a summary of the information obtained from these reports and an analysis of the compiled data by the source of reports, the race, sex and nativity of the patients and the frequency of the reported diseases.

Source of Reports

Table I shows the geographical distribution of the reports received and indicates the number of physicians by counties who have been responsible for these reports. It will be noted that only 34 of the 83 counties in Michigan have sent in reports of occupational diseases and only seven counties have supplied more than ten reports. Genesee and Wayne counties together reported 807 cases, or 80 per cent of the entire number received. Wayne county, including the city of Detroit, reported 400 cases or 39.7 per cent of the total. Some industrial counties such as Bay, Gratiot and Macomb have furnished no reports while Midland, Monroe and St. Joseph have been the source of only one report each.

Over the entire state, 154 physicians contributed reports during the year. This number represented only 2.5 per cent of the 6,142 physicians listed for Michigan in the 1938 American Medical Association directory. It is recognized that many physicians, especially those in rural areas, did not see cases of occupational diseases during the past reporting period. Nevertheless, judging from the experience of other states, at least five per cent of the registered physicians should have reported. During 1937, in the State of Ohio, where reporting has been in progress for many years, over eight

TABLE I. DISTRIBUTION OF OCCUPATIONAL
DISEASE REPORTS BY COUNTIES AND
NUMBER OF PHYSICIANS REPORTING

County	No. of Cases Reported	No. of Physicians Reporting
Barry	1	1
Berrien	20	3
Calhoun	8	4
Cheboygan	1	1
Delta	1	1
Dickinson	5	2
Emmet	1	1
Genesee	407	9
Gogebic	2	2
Hillsdale	2	2
Ingham	3	3
Iron	1	1
Isabella	1	1
Jackson	1	1
Kalamazoo	2	2
Kent	40	9
Lapeer	2	1
Lenawee	5	3
Manistee	2	1
Marquette	6	4
Mason	1	1
Midland	1	1
Monroe	1	1
Montcalm	1	1
Muskegon	10	5
Oakland	18	4
Ottawa	2	1
Saginaw	40	7
Shiawassee	3	2
St. Clair	13	4
St. Joseph	1	1
Van Buren	4	1
Washtenaw	2	2
Wayne (excluding Detroit)	42	16
Detroit	358	55

34 Counties	No. Reports	
	Accepted..	1008
	No. Reports	
	Rejected..	185
	Total..	1193

*Act 210, Public Acts, 1937.

OCCUPATIONAL DISEASE REPORTING—GUDAKUNST, ET AL

TABLE II. DISTRIBUTION OF REPORTED OCCUPATIONAL DISEASES BY ETIOLOGICAL FACTOR
(Number in parenthesis is item number in schedule of Workmen's Compensation Act)

County	(2) Lead	(12) Dope	(14) Chrome	(18) Miner's Disease	(22) Carbon Monoxide	(23) Acid Fume	(24) Petroleum Products	(25) Blisters & Abrasions	(26) Bursitis & Synovitis	(27) Dermatitis	(28) Hernia	(30) Silicosis	(31) Pneumoconiosis	Pharyngitis Asthma Sinusitis Not on Schedule	Total
Barry										1					1
Berrien											1	19			20
Calhoun										7		1			8
Cheboygan			1												1
Delta										1					1
Dickinson												5			5
Emmet										1					1
Genesee	5							211	34	128	28			1	407
Gogebic												2			2
Hillsdale										2					2
Ingham							1			2					3
Iron										1					1
Isabella										1					1
Jackson										1					1
Kalamazoo					1							1			2
Kent	1					1		13		14	2	2	7		40
Lapeer										2					2
Lenawee					1					4					5
Manistee										2					2
Marquette											5	1			6
Mason										1					1
Midland														1	1
Monroe										1					1
Montcalm										1					1
Muskegon								1		3		6			10
Oakland	1								9	4	3	1			18
Ottawa										2					2
Saginaw			1	1				13	7	16			2		40
Shiawassee										2	1				3
St. Clair										3		10			13
St. Joseph										1					1
Van Buren					1					2			1		4
Washtenaw	1									1					2
Wayne	1		1		1					8		23	7		42
Detroit	75	1			5	1		2	16	84	63	99	12		358
Total	84	1	3	1	9	2	1	240	66	296	103	170	29	1 1 1	1008

per cent of the physicians submitted occupational disease reports.

Distribution of Case Reports by Disease

The distribution of reported cases by disease is presented in Table II. Only three of the 1,008 accepted reports did not appear on the schedule of the 31 diseases made compensable by the Workmen's Compensation Law. The remaining 1,005 cases appeared under only 13 divisions of the schedule and

no cases were reported for the remaining 18 divisions.

Dermatitis and skin affections, including blisters and abrasions, accounted for 536 cases or 53.2 per cent of all reports submitted. Next in order of frequency were silicosis with 170 cases (16.8 per cent); hernia, 103 cases (10.2 per cent); lead poisoning, 84 cases (8.3 per cent); bursitis and synovitis, 66 cases (6.5 per cent); and pneumoconiosis, 29 cases (2.9 per cent). Each of

TABLE III. OCCUPATIONAL OR CAUSATIVE AGENT OF REPORTED CASES OF DERMATITIS

Acid	6
Brass	3
Buffing	5
Cement	7
Chemicals (specified).....	11
Cloth Fabric	6
Dyes and Dye Products.....	4
Flowers and Bulbs.....	3
Foodstuffs	10
Ink	4
Leather	1
Metal	6
Oil, Grease and Cutting Compounds.....	159
Paint, Lacquer, Enamel, Varnish, Thinner.....	8
Permanent Wave Solution.....	2
Petroleum Products.....	28
Plating	5
Rubber Compounds.....	5
Soap and Cleaning Compounds.....	16
Sugar Manufacture.....	1
Welding	1
Wood	4
Wood Alcohol	1
TOTAL	296

the seven remaining disease classifications, including the non-scheduled group, was responsible for less than one per cent of the total number of reported cases.

The 23 agents or classes of agents reported as causing the 296 cases of occupational dermatitis are listed in Table III. Oil, grease and cutting compounds gave rise to 159 reported cases; petroleum products accounted for 28 cases; soaps and cleaning compounds 16 cases; chemicals (specified) 11 cases and foodstuffs 10 cases. The remaining 72 cases were distributed among 18 causative agents.

In most states, dermatitis and skin affections have accounted for more than 60 per cent of all reported cases of occupational diseases. In Michigan, the rate was 53.2 per cent for the year ending November 1, 1938. Since this represents the first year of reporting in this State under the amended reporting act, the slightly lower percentage of dermatitis reports as compared with that of other states probably is not significant. The greatest single cause of dermatitis in industrial states where reporting has been in effect for some time is "soaps and cleaning compounds." In this state, where mechanized industry is highly developed, the fact that approximately 54 per cent of the 296 reported cases of dermatitis were caused by oil, grease and cutting compounds may be significant.

Distribution of Cases by Race, Sex and Nativity

An analysis of reported cases by race, sex and nativity of the patients is given in Table IV. The 1,008 reported cases include 688 native white males, 245 foreign-born white males, 29 Negro males and 34 white females. Approximately 60 per cent of the reports received for Negro workers were reports of silicosis, which suggests that Negro labor is extensively used in the dusty trades. It should be noted, however, that the total number of reports received of occupational diseases among Negroes is very small and there is reason to believe that many cases of occupational diseases in this group are not being reported.

The high rate of silicosis among the foreign-born white workers who have settled in Michigan may reflect their early exposure to silicious dusts in their native countries while employed as miners, quarrymen, stone cutters, et cetera. Undoubtedly, many foreign-born workers were given employment in the dusty trades and similar occupations upon arrival in this country, and this also may contribute to the higher silicosis rate in this group.

Distribution of Cases by Industrial Classification

Table V indicates the distribution of reported cases of occupational diseases according to diagnosis and industrial classification. Seven hundred fifty-six or 75 per cent of all cases reported are charged to "transportation equipment" which includes the manufacture of automobiles, automobile bodies, parts, trucks, trailers, tractors, motorcycles, ships, wagons, et cetera; 112 cases are charged to the manufacture of "metallic mineral products"; 34 cases to "domestic and personal service"; 21 cases to "transportation"; 16 cases to "food and allied products"; and 15 cases to "mining and quarrying." The remaining 13 items in the classification, together with six cases of unknown industrial origin, account for 5.3 per cent of the reports received.

Reports Not Acceptable

As indicated earlier in this discussion, 185 reports received during the year were rejected. These reports did not contain sufficient information to warrant their acceptance as representing diseases of occupa-

October 29, 1937-November 1, 1938

OCCUPATIONAL DISEASE REPORTING—GUDAKUNST, ET AL

DISEASE	ALL CLASSES			Native White		Foreign Born White		Negro		Other Races		Unknown
	Total	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	
(2) Lead Poisoning	84	83		44						2		1
(12) Dope Poisoning	1	1		1								
(14) Chrome Poisoning	3	3		3								
(18) Miner's Diseases	1	1				1						
(22) Carbon Monoxide	9	8		7		1						1
(23) Acid Poisoning	2	2		1		1						
(24) Petroleum Products	1	1		1								
(25) Blisters & Abrasions	240	236	1	210			1	4				3
(26) Bursitis & Synovitis	66	63	3	52	3		11					
(27) Dermatitis	296	264	29	229	28		32	3				3
(28) Hernia	103	102	1	75	1		24	3				
(30) Silicosis	170	169		52			99	18				1
(31) Pneumoconiosis	29	29		11			17	1				
Not Scheduled	3	3		2			1					
TOTAL	1008	965	34	688	32	245	2	29		2		9

TABLE V. OCCUPATIONAL DISEASES REPORTED BY CLASSIFIED INDUSTRIES FOR THE STATE OF MICHIGAN

October 29, 1937-November 1, 1938

INDUSTRY	OCCUPATIONAL DISEASES*															TOTAL
	2	12	14	18	22	23	24	25	26	27	28	30	31	NS		
1. Petroleum & Gas Wells																15
2. Mining & Quarrying										2	4	9	1			8
3. Chemical & Allied Prod.				1						2		2	1	2		2
4. Textile Industries										12	1					
5. Food & Allied Prod.								1								16
6. Transportation Equip.	78	1	2		1	1		224	58	212	94	78	6		1	756
7. Metallic Mineral Prod.	3					1		14	6	22	1	50	15			112
8. Non-Metallic Min. Prod.																
9. Wood & Wood Substitutes										4			1			5
10. Print., Pub. & Lithograph.										2						2
11. Paper & Paper Products										1						1
12. Electric Machine & Sup.																3
13. Leather Products			1							2		3				3
14. Rubber & Rubber Goods								1	2	5						8
15. Stone, Clay and Glass										4		1	2			7
16. Miscellaneous Industry																
17. Transportation					7		1			4	2	4	1			9
18. Communication										8		3				21
19. Domestic & Personal	2				1					16	1	13	1			34
Unknown												5	1			6
TOTAL DISEASES	84	1	3	1	9	2	1	240	66	296	103	170	29	3		1008

*Numbers at top of column refer to occupational diseases listed numerically in Table IV.

tional origin. Examples of rejected cases are: cardiac enlargement, fracture, sacroiliac strain, soreness, lameness, tender thumb, puncture wound, influenza, pleurisy, herpes zoster.

The amended occupational disease reporting act specifies that: "An occupational disease, for the purpose of this statute, is an illness of the body which has the following characteristics:

1. It arises out of and in the course of the patient's occupation.
2. It is caused by a frequently repeated or a continuous exposure to a substance or to a specific industrial practice which is hazardous and which has continued over an extended period of time.
3. It presents symptoms characteristic of an occupational disease which is known to have resulted in other cases from the same type of specific exposure.
4. It is not the result of ordinary wear and tear of industrial occupation or the general effect of employment or the kind of illness that results from contacts or activities in life outside of the patient's occupational pursuits."

Comment

It is evident that reporting of occupational diseases in this state is far from complete. Furthermore, it appears that physicians are being guided unduly in their reporting by the schedule of 31 diseases made compensable by a recent amendment to the Workmen's Compensation Law; only three of the 1,008 acceptable reports did not correspond to the items on this schedule. Analysis of the occupational disease reports received during this first year's experience under the amended law leads to the following observations:

- (a) Some cases of occupational diseases known to the Department of Health have not been reported.
- (b) Some physicians have reported all disease states, including many of non-occupational origin.
- (c) Some physicians have reported only those occupational diseases that led to loss of time from work.
- (d) Some physicians have reported only those occupational diseases that are compensable under

another act providing compensation for selected occupational diseases. (Act 61, P. A. 1937.)

(e) Some physicians, apparently, have properly reported all occupational diseases as defined by the reporting law.

The prime purpose in reporting is to provide information as to what occupational diseases occur in the state and under what circumstances they may arise. All diseases resulting from exposure to harmful substances or conditions associated with any occupation or industrial activity should be reported even though they may not appear on the present schedule of compensable diseases. The reporting of only those diseases found on the compensation schedule is not sufficient since information on the occurrence of other occupational diseases in the state may lead to the addition of new items to the schedule. Furthermore, non-disabling as well as disabling diseases should be reported in order that this department may determine both the severity and frequency of occupational diseases occurring in the State of Michigan.

The following suggestion is made in conclusion: Any affection arising out of occupation that will meet the definition of an occupational disease set forth in the amended reporting act as quoted above should be reported to the State Health Department regardless of its presence or absence on the schedule of compensable diseases, the degree of disability it produces or the amount of lost time it incurs.

For the convenience of all persons required by law to report occupational diseases, several reporting forms were sent to all registered physicians known to be practicing in the state at the time the amended reporting law became effective. In case these forms were not received, or the original supply has been exhausted, additional blanks will be furnished upon request directed to the Bureau of Industrial Hygiene, Michigan Department of Health, Lansing or the Bureau of Industrial Hygiene, Department of Health, Detroit, Michigan.

DEPARTMENT OF INTERNAL MEDICINE
UNIVERSITY OF MICHIGAN
STAFF CONFERENCE

F. B., a retired farmer, aged seventy-two, was readmitted to the University Hospital on January 11, 1939, complaining of pain in the right upper quadrant of the abdomen. He had been well until 1929 when weakness developed insidiously and associated with this was ease of fatigue and vertigo. Dyspnea and palpitation caused a restriction of activities but after the progression of these symptoms for three months, there was spontaneous improvement followed by a relapse six months later. There was extreme pallor, a weight loss of 35 pounds, and anorexia in addition to his previously experienced symptoms. He was given ventriculin for seven weeks following which he showed marked improvement, then the medication was discontinued. His course was uneventful except for intermittent soreness of his mouth and tongue until he acquired influenza in 1931, following which all of his symptoms reappeared in addition to coldness and numbness of his fingers and toes. He had been having occasional attacks of moderately severe substernal, epigastric and right upper quadrant pain since 1929. These attacks were not related to exertion nor to his other symptoms, but appeared at any time and were accompanied by anorexia and occasionally by chills and fever. After two to three days he would again be free from this discomfort.

He was first admitted to the University Hospital on October 30, 1932, after ventriculin and oral liver therapy had failed to induce a remission. At that time his findings were: T. 101° (F), P. 94, R. 24, and B.P. 122/64. He was an elderly man, rather poorly nourished, who appeared chronically ill. His skin was pale and slightly icteric. There was no peripheral edema. There was an arcus senilis with unequal sized pupils which reacted well to light and accommodation. There was moderate sclerosis of the retinal vessels. His mouth was edentulous, the tongue clean and smooth with obvious atrophy of the papillae. His chest was emphysematous but free from adventitious sounds. The heart was slightly enlarged but there were no abnormalities except a soft systolic murmur heard at the apex. The liver was palpable 6.5 cm. below the costal margin in the right mid-clavicular line. The edge was firm and smooth but not tender. The spleen was not palpably enlarged. The knee and ankle jerks were obtained; the vibratory sense was diminished over the legs and feet. There was no demonstrable Rombergism.

There was no family history of any blood dyscrasia and the past history was non-contributory.

Laboratory findings in 1932: R.B.C. 1,500,000 per cu. mm.; W.B.C. 4,500 per cu. mm.; Hb. (Sahli) 27 per cent (3.8 grams). Differential: Neutrophils 59 per cent, small lymphocytes 17.5 per cent, large lymphocytes 16.5 per cent, eosinophils 1 per cent, monocytes 5.5 per cent, and blast cells 6.5 per cent. There was anisocytosis and poikilocytosis of the R.B.C. The Price-Jones curve indicated that very small and very large red blood cells were present, and that the largest percentage of them measured 9.5 microns. The platelets were decreased in number. The blood Kahn was negative. Blood bilirubin 1.5 mgm. per 100 c.c. Gastric analysis after 0.5 mgm. of histamin (hypodermically) showed an achlorhydria. The urine and stool examinations were negative. Electrocardiogram was not definitely abnormal.

Course in the hospital and after discharge: As

therapy he received weekly injections of intravenous liver extract. Following the first injection the reticulocytes rose to a maximum of 36.5 per cent five days later. There was marked symptomatic improvement and at the time of discharge on November 12, 1932, his blood showed 2,500,000 red blood cells per cubic millimeter, hemoglobin of 37 per cent. For the past six years his blood has been maintained within normal limits by means of 20 c.c. of intravenous liver extract at monthly intervals. During the first year he gained 30 pounds but has maintained his weight since then.

When he was readmitted on January 11, 1939, he was having recurrent attacks of right upper quadrant abdominal pain with radiation to between the shoulder blades, associated with belching, flatulence, and occasionally vomiting. There were also rare attacks of precordial discomfort which radiated down the left arm.

The physical examination was the same as in 1932.

Laboratory findings: R.B.C. 5,700,000 per cu. mm.; W.B.C. 8,000 per cu. mm.; Hb. 96 per cent (15.2 grams). Hematocrit 48 per cent. Mean corpuscular volume 84 cubic microns. Blood bilirubin 2.9 mgm. per 100 c.c. The electrocardiogram was not definitely abnormal. Roentgen-ray examination showed a normal upper gastro-intestinal tract and non-visualization of the gall bladder without evidence of stone.

Discussion

DR. CYRUS C. STURGIS: Mr. B., do the injections you receive in the arm ever bother you?

PATIENT: They seem to go to my head and cause dizziness for a few minutes. Once I had a chill after leaving the hospital. Occasionally I have a peculiar taste in my mouth.

DR. STURGIS: This patient brings up some very interesting points. First, about the treatment of pernicious anemia. In the present illness it states that ventriculin and oral liver extract failed to induce a remission. This occurs in only a small percentage of cases. As the oral therapy failed he has been given, for approximately six years, monthly intravenous injections of liver extract and these have maintained his blood within normal limits over that entire period. The intravenous method is not one that we recommend for routine treatment because occasionally it causes a reaction characterized by a peculiar taste in the mouth, dizziness, and severe chill followed by a febrile reaction. Although I have never seen any serious results from these, they may be disconcerting to both the patient and his physician. It has the advantage, however, of maintaining the blood by giving injections as infrequently as once a month. In general it can be said that the intramuscular injection of liver extract is the treatment of choice, for the blood can be maintained at a normal level by

giving injections at intervals of one to three weeks and they do not cause either a local or general reaction. This patient has some minor cord changes but in the six years that we have observed him these have not progressed. The important thing to accomplish is to maintain the blood at a *high* level of normal and keep the red blood cells normal in size. The last mean corpuscular volume determination in this patient was 84 cubic microns, which is within normal limits. I think that when the blood count is just a little below normal, progression in cord changes may occur.

In treating patients with highly purified and concentrated liver extracts, it is entirely possible, but unproven, that one may be losing something in the refining process which has a desirable effect on the spinal cord changes. It must be said of this impression that it is lacking in definite proof.

This patient, seventy-two years old, has had pernicious anemia for six years or more; if he continues to do what we advise, he will not die of pernicious anemia. I have just completed a study of 120 records of our fatal cases who have been observed at the Simpson Memorial Institute in the last ten years. Approximately 10 per cent of our patients, whom we have observed during the past ten years, are dead. About one-half of the patients died of spinal cord changes or complications associated with them. Many had advanced spinal cord changes when we first observed them. A fairly large number failed to follow our directions in regard to therapy for it is difficult to take medicine when one has no complaints, and the symptoms of anemia do not appear until the red blood cell count falls below 3.5 millions per cu. mm. When the red blood cell count falls to this level or lower, there may be progression of cord changes. So far, I have never seen a patient with progression of spinal cord changes whose blood was maintained constantly at a high normal level. The remainder of the fatal cases died of various diseases, chiefly of the ones which are common in people of this age group, such as hypertension, congestive heart failure, cancer, pneumonia and other conditions which are not directly related to pernicious anemia. It is interesting to note, however, that although many of these patients died of diseases which were only coincidentally associated with pernicious anemia, nevertheless most of them did not live out their normal life expectancy.

This man has symptoms which might be due to coronary artery disease although we cannot prove this. The literature emphasizes the possible relationship of angina pectoris and pernicious anemia but the two conditions have rarely been associated in our group of about 800 cases. When they do coexist, I think there must be an anemia plus some degree of narrowing of the coronary vessels and it is usually the combination of the two which gives the symptoms of angina pectoris; an anemia alone could not cause it. It is entirely possible that this patient may have a cholecystitis or chole-

lithiasis, as these conditions are not uncommon complications of pernicious anemia.

Dr. Goldhamer, would you like to discuss this case?

DR. S. MILTON GOLDHAMER: It seems to me that, while much time has been directed toward perfecting the treatment of pernicious anemia, more effort should be made to find out the etiology of pernicious anemia. We have some information relative to the physiology of the stomach which suggests a theoretical explanation. The majority of the patients with pernicious anemia are above the age of 45. Patients above this age normally may have an achlorhydria, so that it is conceivable in these individuals with pernicious anemia, in addition to the above deficiency, they may have a "failing stomach" whereby they do not make enough of the intrinsic factor. We also know that in people who do get pernicious anemia the gastric juice is markedly decreased and as the disease improves there is a partial return of function as evidenced by the increase in gastric juice volume. One individual I studied for 90 days; as the blood count improved to normal, the average gastric juice volume increased to about 100 c.c. per hour from 20 c.c. per hour. There is some effect on the function of the stomach by the anemia as well as the stomach deficiency being a factor in the production of the anemia. This is also seen in pernicious anemia of pregnancy. We had a patient who had a red blood cell count of 900,000 per cu. mm., and with a high protein diet alone the anemia was alleviated. It might be that the pregnancy causes the drop in the gastric juice secretion with a decrease in the intrinsic factor. We know that she had a deficient extrinsic factor because her diet was markedly low, and the combination of those two factors caused the anemia.

We have a patient at present in whom we are unable to explain the reticulocyte response. She had a reticulocyte peak of 16 per cent with normal diet plus 90 grams of yeast. The vitamin B complex was removed before feeding. There was no response as far as the total blood count was concerned, in spite of the reticulocyte response. She gained 12 pounds in weight. Now we have put her on ventriculin and the reticulocyte response averages about 11 per cent. The red cell count is gradually increasing but the patient is losing weight.

DR. STURGIS: This importance of the intrinsic factor in the gastric secretion in relation to the formation of red blood cells is a concept which has only been developed in recent years by W. B. Castle. There is no question about the accuracy of this work but it should be emphasized that a diminution, as well as an absence, of this factor is important in the causation of the anemia of pernicious anemia.

Another point in relation to the etiology of pernicious anemia should be stressed. It is known that in a certain number of patients with pernicious

anemia there is a reticulocyte response and a disappearance of the anemia following the feeding of large amounts of yeast which contains the extrinsic factor. Why some patients respond to yeast and others do not, we do not know. Is the great excess of extrinsic factor able to react with very small amount of the intrinsic factor? Would it be possible to give a pernicious anemia patient some stimulant to increase gastric juice which would cause a beneficial effect? Would a substance which increases the secretion of hydrochloric acid likewise increase the amount of intrinsic factor?

DR. HENRY FIELD, JR.: Cord changes quite similar to the cord changes in pernicious anemia patients symptomatically can be produced in people by the deficiency of the vitamin B complex. We have discussed the adequacy of these highly purified yeast extracts. Elsom in Philadelphia reported some cases of pernicious anemia of pregnancy. Patients on inadequate diets developed symptoms among which were those expected in cord changes in pernicious anemia, and the symptoms were relieved when they gave the whole vitamin B complex. I think we lack the concrete evidence on that. My curiosity was stimulated not only because of the cord changes of pernicious anemia of pregnancy with vitamin B deficiency, but also because of two patients that I have seen who had the cord changes with a secondary type of anemia—microcytic anemia. Both had achlorhydria and there has been experimental production of cord changes following a gastrectomy in certain animals. What the relationship is I do not know.

The literature on posterolateral sclerosis describes patients without pernicious anemia who have achlorhydria.

DR. GOLDHAMER: It is interesting to note that patients with pernicious anemia develop cord changes with loss of weight; yet, in patients with malignancy where the loss of weight is marked, they do not have any cord changes.

DR. RAPHAEL ISAACS: The blood now shows a relative increase in polymorphonuclear neutrophils (86 per cent) with an increase in the number and percentage of monocytes (10 per cent). There is an unusual decrease in the number of lymphocytes (4 per cent of 8,000). The blood suggests involvement of the liver in the disease process, and pyogenic infection is present. The blood picture is not incompatible with a hepatitis, possibly secondary to a gall-bladder lesion.

DR. FRANK H. BETHELL: The failure of this

patient to derive the anticipated benefit from the oral administration of potent medication in dosage adequate for the majority of persons with pernicious anemia suggests consideration of another factor in the regulatory mechanism of hemopoiesis. This factor is the variable capacity of the intestine to absorb the hemopoietic substance. It is known that persons without evidence of gastric abnormality or diminished secretion of Castle's intrinsic factor may, as the result of short-circuiting operations on the intestinal tract, jejuno-colic fistulas or prolonged diarrhea, develop severe macrocytic anemia amenable to parenteral liver therapy. It may reasonably be assumed that patients with true pernicious anemia may have their already limited capacity to develop red blood cells more severely restricted by relatively minor disturbances of digestion. The variations in dosage of oral preparations required for satisfactory maintenance of the red blood cell level in pernicious anemia, which are much greater than those of parenteral therapy, support this assumption. Of 69 patients observed at the Simpson Memorial Institute for a period of at least six months and receiving regularly the prescribed dose of ventriculin, extralin or oral liver extract, nine failed to attain a red blood cell level of 4,000,000 and 34 showed persistent macrocytosis as evidenced by mean corpuscular volume values greater than 96 cubic microns. Of 54 patients observed under comparable conditions but treated with parenteral liver preparations, either by intravenous or intramuscular administration, and including the use of both concentrated and dilute extracts, none failed to exceed a red blood cell count of 4,000,000 and in only six was the mean corpuscular volume above 96 cubic microns.

DR. STURGIS: Let me add just a few brief remarks about the diagnosis of pernicious anemia. It is a disease which can be recognized with a great degree of accuracy if sufficient time is available for studying a patient. In addition to the symptoms and signs which are common to all the anemias, such as weakness, dyspnea, palpitation, pallor and occasionally edema of the ankles, there are seven other cardinal diagnostic points of the disease. These are (1) achlorhydria; (2) macrocytosis; (3) high color index; (4) the response to patent anti-pernicious anemia therapy; (5) paresthesia; (6) recurrent glossitis; and (7) leukopenia, or the absence of a leukocytosis. These are usually recognized or eliminated without difficulty; and, if all or even a majority of them are present, then the diagnosis of true Addisonian pernicious anemia is at once apparent.

THE JOURNAL

OF THE

Michigan State Medical Society

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MARCH, 1939

*"Every man owes some of his time to the up-
 building of the profession to which he belongs."*

—THEODORE ROOSEVELT.

EDITORIAL

THE NATURE OF CANCER AND THE PHYSICIAN'S RESPONSIBILITY*

CANCER begins as a local disease. It is characterized by atypical proliferation of the patient's own body cells, producing a new structure which serves no useful purpose, has unlimited power of growth and is never self-healing. If it is discovered early, and removed or destroyed, cure is complete. If allowed to spread to essential organs or to produce distant foci through

*The importance of early diagnosis as well as the institution of early treatment, either surgical or x-ray, cannot be over-emphasized. This editorial is the first of a series on the subject written by a member and sponsored by the Cancer Committee of the Michigan State Medical Society.—EDITOR.

transportation in the blood or lymph, cure may be impossible.

For several years the Cancer Committee of the Michigan State Medical Society has been engaged in making these essential facts in regard to the nature of cancer available to the public. By press releases, feature articles, illustrated lectures and radio talks the message has been broadcast. The Women's Field Army has now become such an important ally in this endeavor that it bids fair to assume the major burden of lay education. Dissemination of knowledge about cancer, its nature, early manifestations and its curability, has not created any new responsibilities for the physician, but has made it more imperative than ever before that he recognize and meet the social, economic and professional responsibilities which this disease has placed upon him. Some physicians who read this page will say that they have no interest in cancer, that they do not see cancer in their practice. It is difficult to understand how any man with an active practice can fail to have frequent professional contact with malignant neoplasms. There are at least 25,000 cases of cancer in Michigan today. There are probably 8,000 new cases each year, and each week about 100 deaths from cancer are recorded in Michigan. Moreover, the increasing proportion of our population reaching the "cancer age" and the success in preventing and alleviating other diseases has created a greatly increased potential liability to cancer. These trends are still continuing and our responsibilities are increasing in magnitude each year.

It is realized that the original responsibility for the early diagnosis of cancer rests with the patient. It is precisely for this reason that lay education is essential. The physician cannot initiate action. His client must come to him because of a mass, an abnormal discharge, a sore which does not heal, a new form of indigestion, a change in the bowel habit, or some other less frequent complaint. Whether asked or not, the question is always there. "What is it? Is this a sign, a symptom, of cancer?" And the patient is entitled to an answer without delay!

Thus the first responsibility of the physician is that of securing prompt and def-

inite diagnosis. The woman who has discovered a lump in her breast should receive professional service of a different quality than did the patient who was told by her family physician to come back in six weeks to see whether the lump had changed. Fortunately that patient herself knew that such advice was thoroughly bad and turned elsewhere for assistance. Not so the wife who took her husband from doctor to doctor seeking relief from his intractable "stomach trouble." Not until the thirteenth physician was consulted, and after a loss of more than a year of valuable time, was the roentgenological study advised which revealed a then inoperable carcinoma. Delay in securing a diagnosis is added to the unavoidable delay between the onset of the disease and the first medical consultation; and delay frequently makes cure impossible.

A statement so frequently reiterated tends to lose force, but it is still absolutely true that the fate of the cancer patient usually rests in the hands of the physician who sees him first.

The second responsibility of the physician to the patient develops immediately upon making the diagnosis. Therapeutic management must be mapped out. Everyone knows that the recognized methods of curing cancer are removal by the knife or cautery and destruction by radium or x-rays. How these agents are to be used, and how they may be combined, may raise difficult questions which require the collaboration of specialists. Treatment should be adequately conceived for the first attempt. A second opportunity to cure a cancer is seldom granted.

There is a third responsibility which frequently must be borne alone by the family physician, and which makes a heavy draft upon his resources in both the art and the science of medicine. This is the care of the patient with incurable cancer. Much can be done in maintaining the general physical state, in mitigating pain and particularly in sustaining morale. The writer has recently observed the final days of a patient with inoperable malignancy who kept up his professional and intellectual interests to the very end. It is possible to

die of cancer courageously, and the physician who is adequately meeting his responsibilities will help make this possible.

SUPERVOLTAGE X-RAY THERAPY

DETROIT is soon to have an institute for the study and treatment of malignant disease. It is to be under the control of the medical department of Wayne University. Just the extent of the venture, we do not at this time know. Chicago has its tumor institute which is well under way.

The treatment of malignant disease opens up a vast field for study and research which can be carried on adequately only in such an institution of concentrated effort of pathologist, x-ray and radium therapist and physicist. To quote from the brochure sent out recently by the Chicago Tumor Institute:

"Although much progress has been realized during the last fifteen years in the application of x-rays and radium to cancer, our knowledge of the subject is still in its infancy. Those who have had the greatest experience with this problem are the first to recognize the limitation of our knowledge and the importance of exploring very thoroughly and very deeply the fundamental principles of radiation and the techniques of its administration. The tendency to pursue a fixed technique in the radiation of all forms of cancer is to be avoided."

Dr. M. J. Hubeny, in a brief review of the progress of roentgenology, makes the following statement: "Supervoltage therapy, notwithstanding its widely heralded theoretical advantages, is still to be proved of sufficient value to warrant the installation of the necessary apparatus." He goes on to say, however, that close coöperation of groups, each consisting of a radiologist, special surgeons, pathologist and physicist, will after years of diligent observation, establish the degree of its usefulness.

The proposed institute in Detroit is in the right direction as the study and research feature is from the very nature of the problem an institutional rather than a private function.

DR. T. E. DeGURSE

DR. T. E. DeGurse of Marine City, the newly appointed councillor for the seventh district, who succeeds Dr. Heavenrich, was born in Lambton County, Ontario, in



DR. T. E. DeGURSE

Councillor for the Seventh District of Michigan

1873. He was educated at Assumption College, Sandwich, and the Detroit College of Medicine, where he was graduated in 1895. Dr. DeGurse has had a very busy career and he is in the truest sense an all around citizen. We can predict without reservations that the seventh councillor district will have an able representative in Dr. DeGurse, whose viewpoint is that of a physician in active practice of medicine.

He served in Porto Rico during the Spanish American War. He was health officer of Marine City for thirty years and served a year and a half during 1919-20 as full-time health officer in St. Clair. In 1927, Dr. DeGurse was appointed acting assistant surgeon to the U. S. Public Health Service. He has practiced his profession in Marine City since his graduation, except his year in service in Porto Rico and his period as health officer in St. Clair as mentioned. He was for thirty years surgeon of the Rapid Railroad and is at present local surgeon for the Bell Telephone, and Detroit Edison Company, as well as Industrial Surgeon for Standard Products Company. Dr. DeGurse has been president of the St. Clair County

Medical Society on two different occasions, and from 1932 to 1938, he was alternate delegate to the American Medical Association. He is at present mayor of Marine City, where he was first elected in 1935. During Dr. DeGurse's incumbency as mayor of Marine City, his city has a filtration plant with a capacity of 2,500,000 gallons. During his incumbency as mayor, two fine parks have been laid out and landscaped. Dr. DeGurse has a winning personality, which, along with his ability, has attracted a large practice. His experience and practical business outlook will be an asset to the Michigan State Medical Society.

ON THE WITNESS STAND

THIS is the title of a brochure of sixty-four pages by J. Weston Walch, a layman who has studied the problem of medical care from all angles. It has had a large circulation in the state of New York and by special arrangement with the medical society of the state of New York which holds the copyright, it is now available to the state of Michigan. Copies have been mailed to members of the Michigan State Medical Society under the sanction of the Public Relations Committee of the Society. As the number of copies procured is limited, each doctor should peruse his brochure thoroughly and pass it on to appreciative laymen. We know of no clearer or more concise as well as truthful presentation of the subject of socialized and individualistic medicine. The method of presentation is that of question and answer; hence the title. There are 126 questions completely and convincingly answered. The answers are the result of consultation of numerous books and pamphlets as well as reports of foundations and committees. The answers are also based on replies to questionnaires to governors, local and state health officers, college professors, hospital executives, as well as private physicians.

The author has also written a book for young debaters in high schools and colleges in which he presented both sides to the controversy in equal space. It will be remembered that a couple of years ago the subject of socialized medicine was one of much debate in the schools. In his book

he tried to be neutral. His study and assembly of the data soon convinced him that the people of the United States were on the whole healthier than those of countries in which compulsory health insurance prevailed; furthermore, that compulsory health insurance did not render satisfactory medical service. Since *On the Witness Stand* was written, the report of the Surgeon-general of the United States Health Service has appeared. We have commented on it in the February number of this JOURNAL. The satisfactory condition of public health in this country is largely the result of patient prolonged, untiring efforts of the medical profession in apprehending disease in its early stages, rounding up infectious diseases and aiding quarantine. Every doctor practices and has practiced preventive medicine. Sanitation has also been an important factor, but without the practice of preventive medicine by the individual physician, organized health departments, civic or state, would be greatly handicapped.

Read *On the Witness Stand* and pass it on. It speaks for the physician more forcefully than he can speak for himself.

CAMERA FANS' HANDS

If you are a camera fan and develop your own pictures, look at your hands! If there be a skin rash that resembles that from poison ivy, the possibility is that your developers may be the cause. At all times numbers of amateur photographers are wondering what may be the cause of a dermatitis on their hands. The common cause may be found in the dark room. Among other developers are pyrogalllic acid, metol, hydroquinone, amidol, rodinal and elon. Several of these substances are well known skin irritants.

Experience is the best teacher but often the most expensive. The professional photographer long ago has learned the necessity of wearing gloves to avoid hand contact with some developers. The enthusiastic amateur photographer needs to carry out the same precautions as the professional. Always wear rubber gloves when doing developing. If, for some reason, this is impractical, then rinse the hands after every contact with the developer. If a dermatitis appears only after the use of some one developer, avoid the use of this irritant and depend upon other types of chemicals.

Dr. Carey P. McCord, Director of the Bureau of Industrial Hygiene of the Michigan Department of Health, states that in addition to skin diseases of the hands and forearms from developers, other skin diseases may arise among amateur photographers who utilize toning solutions containing salts of gold and platinum. Chromate solutions, as used in photographic work, may produce typical "chrome holes." These resist all treatment and may persist for months. Dr. McCord states that the ordinary brownish skin discoloration common to many photographers who do their own developing is not particularly important, but on occasion, this condition

may be followed by a painful, itching skin rash characterized by hundreds of small water blisters. When this skin rash appears, avoid all contact with developers. When fully healed, wear gloves during all developing work. Better still, let the professional photographer do your developing.

OCCUPATIONAL CANCER

The influence of occupation upon the occurrence of cancer among workers is a fact little realized by the general public, according to Dr. Carey P. McCord, Director of the Bureau of Industrial Hygiene of the Michigan Department of Health. The incidence of the disease, he says, is much larger among workers long exposed to such industrial substances as petroleum oils, coal tars, arsenic, aniline and shale oil, than among the general industrial population.

The nation-wide system of compulsory reporting of occupational diseases in many European countries has revealed large numbers of cancer cases. Great Britain reported 811 cases between 1920 and 1927. In Europe high industrial cancer rates are found among workers engaged in chimney sweeping, briquette making, mining, mule spinning (a cotton spinning process), petroleum production and manufacturing and coal tar manufacturing and processing. In the United States greater mechanization of industry, improvement in industrial methods of handling raw materials and by-products and a higher standard of working and living conditions, have cut down the occurrence of this disease among industrial workers, he believes. In Ohio, where reporting has been required since 1913, only 11 cases have been recorded between 1920 and 1937.

Even in the face of such favorable comparison, Dr. McCord feels that the problem of occupational cancer in Michigan warrants specific attention so that early diagnosis may be made and the contributing factors identified.

HAVE YOU EVER WORRIED ABOUT A DOCTOR'S HEALTH?

"We called at the home of a doctor one evening recently. He had been out for several nights. Early in the evening the doctor had dropped sound asleep on a davenport in the living room—sleeping the sleep of the exhausted. We apologized and suggested that we would call another time . . . when the phone rang. He arose as in a trance and walked over to answer it. "Yes . . . yes . . . some temperature? . . . well, I'll be over right away."

Slowly he turned around. He stared at us, rubbed his eyes, and said, "Hello, when did you come?" The man was hardly awake as he hustled into his hat and coat and with an apologetic "I'll be back in a little while," he left for the home of some sick person.

Do you ever worry about your doctor's health? That isn't as ridiculous as it sounds. He may be rigid in his dictates about how you shall protect your health; he may prescribe an exact routine which will prolong your years . . . but, he is absolutely and almost criminally careless about his own health. He has schooled himself to forget his own well being to protect yours. He jeopardizes the future of his own wife and children to watch over yours.

"Yes," you reply, "but isn't he paid for it?" Is he? Doctors are short-lived. Their average expectancy of life is the lowest of the professional groups. They are valuable men in every community. We are not sure there is anything we can do about this but recognize it—and appreciate it. If socialized medicine and surgery becomes the rule, as some reformers would have it, we then would appreciate the family doctor."—*Lapeer County Press, Michigan.*

POSTGRADUATE COURSES FOR 1939

"A few physicians increase in knowledge from within and grow from their own doing. These are the innate investigators. The rank and file require outside help to grow and to progress. Books, meetings, contacts, discussions, teachers, are our armamentarium for progress. Like the 'spring tonic' of past days, all of us need some of this medicine at least annually, better if it comes more frequently. A large majority of physicians know their need and seek treatment."—HENRY A. CHRISTIAN, M.D.

Ann Arbor and Detroit

<i>Courses</i>	<i>All dates inclusive</i>
Anatomy	(Wednesdays) February 15—May 31
Electrocardiographic Diagnosis	April 3-8
Pediatrics	April 3, 4 and 5
Urology	April 10, 11 and 12
Proctology	April 13, 14 and 15
Gynecology, Obstetrics and Gynecological Pathology	April 10-14
Ophthalmology and Otolaryngology	April 20-26
The Care of the Diabetic	May 8, 9 and 10
Diseases of Blood and Blood-Forming Organs	May 11, 12 and 13
Allergy	June 19-23
General Practitioners' Course	June 26, 27 and 28
Pathology: Special pathology of neoplasms	June 26-July 7
Pathology of the female genito-urinary organs	July 10-21
Special pathology of the eye	July 24-August 4
Special pathology of the ear, nose and throat	August 7-18
Laboratory Technic	June 26-August 4
Summer Session Courses	June 26-August 4
Roentgenology	June 26-August 4
Roentgenology	October 30-Nov. 4
Neuropsychiatry (Administrators' and Specialists' Course)	April 3 and 4
Neuropsychiatry (General Practitioners' Course)	November 1, 2 and 3

EXTRAMURAL POSTGRADUATE COURSE

Beginning April 3 and continuing throughout the month of April in the following centers:

Ann Arbor	Lansing-Jackson
Battle Creek-Kalamazoo	Saginaw
Flint	Traverse City-Manistee-
Grand Rapids	Cadillac-Petoskey

Bulletin of postgraduate courses will be available shortly and will be sent upon request.

DEPARTMENT OF POSTGRADUATE MEDICINE

University Hospital, Ann Arbor, Michigan

President's Page

AUTONOMY

There is considerable misunderstanding on the part of some members of our society as to the purposes of the Enabling Acts and of the objectives of the Medical Security Corporation.

The thought and purpose is solely to make it legally possible for counties or communities to develop systems for the distribution of medical service on a voluntary prepayment basis strictly in accordance with their own local needs.

The Michigan State Medical Society proposes to develop a central organization separate from the Michigan State Medical Society to assist, to advise and to aid local areas when requested.

There is no intention of dictation or compulsion—I am unaware of any danger to your rights and prerogatives.

Yours truly,

A handwritten signature in cursive script, reading "Henry A. Luce".

President, Michigan State Medical Society

Department of Economics

L. FERNALD FOSTER, M.D., Secretary

THE NORTHWEST REGIONAL CONFERENCE

About one hundred fifty representatives of the seventeen participating states and the American Medical Association met at the Palmer House in Chicago, Sunday, February 12. The Conference, which meets annually, limits its discussions to questions of Medical Economics.

The Conference decided to change its name, eliminating the geographical designation now present. It also invited all state medical societies to become members of the participating group, which since its organization, has been limited to those of the mid-western area.

The Michigan State Medical Society was singularly honored at the 1939 Conference when its President, Dr. Henry A. Luce of Detroit, discussed on the program, "The National Health Conference," and when L. Fernald Foster, M.D., was elected president of the Conference for 1940, at which time the Michigan State Medical Society becomes host to the meeting in Chicago.

GROUP HOSPITAL SERVICE

The Michigan Society for Group Hospitalization, organized by the Michigan State Hospital Association and approved by the Michigan State Medical Society, has begun its operations in the field of hospital service.

The organization will provide twenty-one days of hospital service in any one year on the following basis:

Individual, 60c a month; husband and wife, \$1.20 a month; entire family (with all children from age one year to nineteen years) \$1.50 a month. Service in semi-private room will be available at the following rates: Individual, 75c a month; husband and wife, \$1.50 a month; family, \$1.90 a month.

The hospital service will include no professional services rendered by a doctor of medicine. It will consist of room and board, general nursing, operating room and interne service, ordinary drugs and dressings and certain technical services rendered by hospital employees.

COUNTY SECRETARIES' CONFERENCE

The Annual Conference of County Secretaries was held at the Olds Hotel, Lansing, Sunday, January 15. There was a large attendance of secretaries and guests present. The following topics and essayists made up the program.

J. J. McCann, M.D., Chairman, presiding.
"Greetings"—B. R. Corbus, M.D., President-elect, Michigan State Medical Society.
"Michigan's Group Hospital and Medical Care Plans"—L. Fernald Foster, M.D., Secretary Michigan State Medical Society.
"Our Legislative Forecast"—H. A. Miller, M.D., Chairman Legislative Committee, Michigan State Medical Society.
"Affairs of State"—Hon. Vernon Brown, Auditor-General, State of Michigan.
"Physicians in the Press and on the Air"—Mr. Lee A. White, Public Relations Director, Detroit News.
"The Duties of a 100 per cent County Secretary"—Mr. Joe Savage, Executive Secretary, West Virginia State Medical Society.

REFUSING CALLS

"Is a doctor of medicine legally compelled to accept a call to render professional services?"

This question has been asked frequently in the past, both by physicians and laymen.

The Michigan State Board of Registration in Medicine advises there is no law, state or federal, that can compel anyone to accept work or render services against his will so to do. This opinion has been backed by the Michigan Attorney General's Department.

"However, if a doctor of medicine accepts a patient or promises to render services, he is responsible until such time as he discharges himself or is discharged by the patient, parent or guardian."

USE TAX

Of interest to all physicians in Michigan is the following excerpt from a statement of the State Board of Tax Administration, which administers the Michigan Sales Tax and Use Tax:

"As the Act is worded at the present time, all citizens and residents of this State are required to

JOUR. M.S.M.S.

pay a tax upon their purchases where no sales tax has been paid. This ordinarily means upon all purchases made from outside of the State of Michigan. In so far as doctors, physicians and surgeons are concerned, it would require that they pay tax on all their equipment, such as bandages, surgical equipment, office equipment and also medicines for the use of their patients which they purchase from outside of the State of Michigan. We are not making any concerted drive against any particular group or class of taxpayers. All residents of this State are presumed to know that the law is in effect and we have endeavored to advise all of the various types of associations, such as doctors, dentists, contractors, merchants, civic organizations, fraternal organizations, etc., of their liability under this law, and if at any time we find the law being violated, we feel it is our duty to insist that the law be complied with."

GOVERNMENTAL MEDICINE OPPOSED

The Pittsburgh Chamber of Commerce developed the following resolution which was forwarded to the President of the United States and all members of Congress from Pennsylvania:

"The Pittsburgh Chamber of Commerce, whose civic program on public health work has brought it into frequent contact with the medical profession and its various associations, wishes to publicly express its confidence in the principles and the purposes of the American Medical Association and the various affiliated medical groups that have been charged with violation of the Federal Anti-Trust Laws.

"The Chamber of Commerce feels that organized medicine is not hostile to, or active against, any adequate plan for bringing medical and hospital service to the public at reasonable cost. We cite in support of this stand the current coöperation of the Allegheny County Medical Society with Pennsylvania's Public Assistance Plan for Care of the Indigent Sick; its acceptance of group hospitalization insurance and its proposal to consider insured medical service for certain low income groups.

"This Chamber, however, stands with the Allegheny County Medical Society and other medical associations in opposing centralized government control through socialistic measures. We believe that such direction and control will prove extravagant and wasteful and is opposed to efficient service. It also tends to compete with current forms of medical practice and hospital service which are now under local and state sponsorship and is but another step toward un-American socialization of our accepted form of Government."

COUNCIL AND COMMITTEE MEETINGS

1. Wednesday, February 8, 1939—Legislative Committee—Pantlind Hotel, Grand Rapids—5:00 p. m.
2. Friday, February 10, 1939—Maternal Health Committee—Hotel Olds, Lansing—12:15 p. m.
3. Thursday, February 16, 1939—Advisory Committee on Syphilis Control—Hotel Statler, Detroit—6:00 p. m.
4. Sunday, February 19, 1939—Committee on Distribution of Medical Care—University Hospital, Ann Arbor—2:00 p. m.
5. Wednesday, February 22, 1939—Medico-Legal Committee—Hotel Statler, Detroit—4:30 p. m.

6. Wednesday, February 22, 1939—Executive Committee of The Council—Hotel Statler, Detroit—3:00 p. m.
7. Sunday, February 26, 1939—Executive Committee of The Council—Hotel Olds, Lansing—3:00 p. m.
8. Thursday, March 2, 1939—Legislative Committee—Hotel Statler, Detroit—2:00 p. m.
9. Sunday, March 12, 1939—Legislative Committee, Hotel Olds, Lansing—3:00 p. m.

PROPOSED VOLUNTARY GROUP MEDICAL CARE BILL

(House Bill No. 215) MICHIGAN

A Bill Introduced by Representatives Dora Stockman, James B. Stanley and Warren G. Hooper, on February 20.

To provide for and to regulate the incorporation of non-profit medical care corporations; to provide for the supervision and regulation of such corporations by the state commissioner of insurance; and to prescribe penalties for the violation of the provisions of this act.

Digest

Section 1.—Intent of act: "to promote a wider distribution of medical care, and to maintain the standing and promote the progress of the science and art of medicine in this state."

Section 2.—General purposes: Act permits formation of a corporation to establish, maintain, and operate a voluntary non-profit medical care plan whereby subscribers are entitled to medical and surgical care, appliances and supplies, in their homes, in hospitals, and in physicians' offices. Such other benefits may be added from time to time as the corporation may determine. Plan is subject to supervision by Commissioner of Insurance, but is not subject to Michigan laws with respect to insurance corporations or to the corporation laws.

Section 3.—Manner of subscribing to articles of incorporation: (This section was drafted by the Insurance Department.)

Section 4.—Fees which must be paid upon incorporation. (Drafted by Insurance Department.)

Section 5.—Plan to be submitted to Commissioner of Insurance for approval. (Drafted by Insurance Department.)

Section 6.—Commissioner of Insurance may inspect records of corporation. (Drafted by Insurance Department.)

Section 7.—Annual Report shall be filed with the Insurance Commissioner. (Drafted by Insurance Department.)

Section 8.—Board of Directors shall have representation from medical profession and the public.

Section 9.—Corporation has authority to provide all medical benefits, but may divide benefits into classes or kinds, and limit same in quantity and to certain areas, (to permit experiments in a few sections in order to develop the best possible plan.)

Section 10.—Each M.D. has the right to register with the corporation to provide medical service. The physician-patient relationship shall be maintained. No restriction shall be imposed on a doctor of medicine as to methods of diagnosis or treatment.

Section 11.—Provision for reasonable reserves. Funds shall be invested only in securities permitted life insurance companies. (Drafted by Insurance Department.)

Section 12.—Medical care shall be in accordance with the best medical practice in the community. "A non-profit medical care corporation shall not furnish medical care otherwise than through doctors of medicine."

Section 13.—Payments in whole or in part may be made in behalf of indigent and borderline subscribers by corporations, associations, groups, individuals, or governmental agencies; but each contract shall be with the subscriber (the patient.)

Section 14.—Existing legal rights of the patient and the physician are not to be disturbed.

Section 15.—The corporation is not an insurance company but "is hereby declared to be a charitable and benevolent institution," free from taxation.

Section 16.—Violation of provisions of act constitutes a misdemeanor.

Section 17.—Severing clause.

THE PEOPLE OF THE STATE OF MICHIGAN ENACT:

Section 1. It is the purpose and intent of this act, and the policy of the legislature, to promote a wider distribution of medical care and to maintain the standing and promote the progress of the science and art of medicine in this state.

Sec. 2. Any number of persons not less than seven, all of whom shall be residents of the state of Michigan, may form a corporation, under and in conformity with the provisions of this act, for the purpose of establishing, maintaining and operating a voluntary non-profit medical care plan, whereby medical care is provided at the expense of such corporation to such persons or groups of persons of low income as shall become subscribers to such plan, under contracts which will entitle each such subscriber to definite medical and surgical care, appliances and supplies, by licensed and registered doctors of medicine in their offices, in hospitals, and in the home. Such other benefits may be added from time to time as the corporation may determine, with the approval of the commissioner of insurance. Medical care shall not be construed to include hospital service.

Any such non-profit medical care corporation shall be subject to regulation and supervision by the commissioner of insurance as hereinafter provided. Any such non-profit medical care corporation shall not be subject to the laws of this state with respect to insurance corporations or with respect to corporations governed by the corporation laws, and no such non-profit medical care corporation may be incorporated in this state except under and in accordance with the provisions of this act.

Sec. 3. The persons so associating shall subscribe to articles of association which shall contain:

First, The names of the associates, and their places of residence;

Second, The location of the principal office for the transaction of business in this state;

Third, The name by which the corporation shall be known;

Fourth, The purposes of the corporation;

Fifth, The term of existence of the corporation;

Sixth, The time for the holding of the annual meetings of the corporation;

Seventh, Any terms and conditions of membership therein which the incorporators may have agreed upon, and which they may deem it important to have set forth in said articles;

Eighth, Any other terms and conditions, not inconsistent with the provisions of this act, necessary for the conduct of the affairs of the corporation.

Sec. 4. Such articles shall be acknowledged by the persons signing the same before some officer of

this state authorized to take acknowledgments of deeds, who shall append thereto his certificate of acknowledgment. All such articles shall be in triplicate and upon proper forms as prescribed by the commissioner of insurance. Before said articles of association shall be effective for any purpose, the same shall be submitted to the attorney general for his examination, and if found by him to be in compliance with this act, he shall so certify to the commissioner of insurance. Each corporation shall pay to the attorney general for the examination of its articles of association, or any amendments thereto, the sum of five dollars. Each corporation shall pay to the commissioner of insurance a filing fee for its articles of association, or any amendments thereto, the sum of ten dollars. Such fees shall be covered into the state treasury for the benefit of the general fund.

Any corporation subject to the provisions of this act may, with the approval of the commissioner of insurance, and in the manner provided in its articles, amend its articles of association in any manner not inconsistent with the provisions of this act.

Sec. 5. The persons so associating, before entering into any contracts or securing any applications of subscribers, shall file in the office of the commissioner of insurance, together with triplicate copies of the said articles of association with the certificate of the attorney general annexed thereto, a statement showing in full detail the plan upon which it proposes to transact business, a copy of by-laws, a copy of contracts to be issued to subscribers, a copy of its prospectus, and proposed advertising to be used in the solicitation of contracts of subscribers. The commissioner of insurance shall examine the statements and documents so presented to him by the persons so associating, and shall have the power to conduct any investigation which he may deem necessary, and to hear such incorporators, and to examine under oath any persons interested or connected with the said proposed corporation. If, in the opinion of the commissioner of insurance, the incorporation or solicitation of contracts would work a fraud upon the persons so solicited, he shall have authority to refuse to license the said corporation to proceed in the organization and promotion of the association. If, upon examination of the said articles of association, the documents and instruments above mentioned, and such further investigation as the commissioner of insurance shall make, he is satisfied that (a) the solicitation of subscriptions would not work a fraud upon the persons so solicited; (b) the rates to be charged and the benefits to be provided are fair and reasonable; (c) the amount of money actually available for working capital is sufficient to carry all acquisition costs and operating expenses for a reasonable period of time from the date of issuance of the certificate of authority, and is not less than the sum of ten thousand dollars; (d) the amounts contributed as the working capital of the corporation are repayable only out of surplus earnings of such corporation, and (e) adequate and reasonable reserves to insure the maturity of the contracts are provided, he shall return to such incorporators one copy of such articles of association, certified for filing with the county clerk of the county in which said corporation proposes to maintain its principal business office, and one copy to be certified by the commissioner of insurance for the records of the corporation itself, and shall retain one copy for his office files, and he shall deliver to such corporation a certificate of authority to commence business and issue contracts entitling subscribers to definite medical and surgical care, which contracts have been approved by him.

The said commissioner of insurance shall have power and authority, at any time to revoke, after

reasonable notice and hearing, any certificate, order or consent made by him to the said corporation, to proscribe applications for membership, upon being satisfied that the further solicitation of subscribers will work a fraud upon the persons so solicited, and he shall have authority to make such investigation from time to time as he may deem best, and grant hearings to such incorporators in their relation thereto. The commissioner of insurance shall have the same authority in respect to taking over and/or liquidating corporations formed and/or doing business under this act as is provided by chapter 3 of part 1 of Act No. 256 of the Public Acts of 1917, as amended.

Any dissolution or liquidation of a corporation subject to the provisions of this act shall be conducted under the supervision of the commissioner of insurance, who shall have all power with respect thereto granted to him under the provisions of law with respect to the dissolution and liquidation of insurance companies.

Sec. 6. The commissioner of insurance, or any deputy or examiner or any other person whom he shall appoint, shall have the power of visitation and examination into the affairs of any such corporation and free access to all of the books, papers and documents that relate to the business of the corporation, and may summon and qualify witnesses under oath, to examine its officers, agents or employees or any other persons having knowledge of the affairs, transactions and conditions of the corporation. The per diem, traveling and other necessary expenses in connection therewith shall be paid by the corporation.

Sec. 7. Each such corporation shall annually on or before the first day of March of each year file in the office of the commissioner of insurance a sworn statement verified by at least two of the principal officers of said corporation showing its condition on the thirty-first day of December, then next preceding, which shall be in such form and shall contain such matters as the commissioner of insurance shall prescribe. In case any such corporation shall fail to file any such annual statement as herein required, the said commissioner of insurance shall be authorized and empowered to suspend the certificate of authority issued to such corporation until such statement shall be properly filed.

Sec. 8. The board of directors of a non-profit medical care corporation shall have representation from the public and the medical profession of the state.

Sec. 9. A medical care corporation may by its articles of association or its by-laws limit the benefits that it will furnish, and may divide such benefits as it elects to furnish into classes or kinds. In the absence of any such limitation or division of service, a non-profit medical care corporation shall be authorized to provide both general and special medical and surgical care benefits, including such service as may be necessarily incident to such medical care. A medical care corporation may limit the issuance of contracts to residents of counties as specified by the by-laws. Any change in by-laws shall first receive the approval of the state commissioner of insurance.

Sec. 10. Each doctor of medicine, licensed and registered under Act No. 237 of the Public Acts of 1899, as amended, practicing legally in this state shall have the right, on complying with such regulations as the corporation may make in its by-laws, to register with the corporation for general or special medical care, as the case may be. A non-profit medical care corporation shall impose no restrictions on the doctors of medicine who treat its subscribers as to methods of diagnosis or treatment.

The physician-patient relationship shall be maintained and the subscriber shall at all times have free choice of doctor of medicine.

Sec. 11. A non-profit medical care corporation shall, before beginning business, and at all times thereafter while engaged in business, maintain reserves in such form and amount as the commissioner of insurance may determine; Provided, That the funds of any such corporation shall be invested only in securities permitted by the laws of this state for the investment of assets of life insurance companies.

Sec. 12. All medical care rendered on behalf of a non-profit medical care corporation shall be in accordance with the best medical practice in the community at all times.

A non-profit medical care corporation shall not furnish medical care otherwise than through doctors of medicine, licensed and registered under Act No. 237 of the Public Acts of 1899, as amended.

Sec. 13. Each non-profit medical care corporation may receive and accept from governmental or private agencies, corporations, associations, groups, or individuals, payments covering all or part of the cost of subscriptions to provide medical care for needy and other persons. All contracts for medical care shall be between the medical care corporation and the person to receive such care.

Sec. 14. No action at law based upon or arising out of the physician-patient relationship shall be maintained against a non-profit medical care corporation.

Sec. 15. Each corporation subject to the provisions of this act is hereby declared to be a charitable and benevolent institution, and its funds and property shall be exempt from taxation by the state, or any political subdivision thereof.

Sec. 16. Any person, or any agent or officer of a corporation, who violates any of the provisions of this act, or who shall make any false statement with respect to any report or statement required by this act, shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished as provided by the laws of this state.

Sec. 17. Should any provision or section of this act be held to be invalid for any reason, such holding shall not be construed as affecting the validity of any remaining portion of such section or of this act, it being the legislative intent that this act shall stand, notwithstanding the invalidity of any such provision or section.

KEEP YOUR STATUS AS PATIENT

Socialized medicine has an intriguing sound. Perhaps the reason it attracts so many ears is because it sounds like medical treatment for nothing. Just at the present time we are getting so many things for nothing that business and others are being taxed to death. Within recent days some evidence bearing on socialized medicine was brought to Lansing from two widely separated points incidental to other discussion. One point was the shore of Hudson bay, the other was Portland, Ore. Up in the sub-Arctic, a subsidized physician gave two Eskimo women, who needed serious attention, doses of castor oil. In Portland, Ore., a prepaid surgeon, who had no interest in his patient, sprinkled talcum powder over seriously-mangled fingers. As we proceed toward socialized medicine, let us consider it well.—*Lansing State Journal*, Feb. 18, 1939.

MID-WINTER MEETING OF THE COUNCIL

January 28 and 29, 1939

HIGHLIGHTS:

1. Proposed enabling acts to permit voluntary group hospitalization and voluntary group medical care in Michigan, approved.
Agreement reached with Michigan Hospital Association so that a comprehensive group health program may be offered to the public, upon enactment of enabling laws.
2. Annual Meeting, Grand Rapids, September 19, 20, 21, 22, to feature 38 eminent guest lecturers in 10 general assemblies.
3. Secretary, Treasurer, Editor, Medico-Legal Committee, Executive Secretary elected.
4. Budget for 1939 approved.
5. Reports of numerous committees show amazing activity in behalf of better medical care and its distribution in Michigan.

FIRST SESSION

1. *Roll Call.*—The meeting was called to order by Chairman P. R. Urmston in the Hotel Statler, Detroit, at 10:30 a. m. Those present were Drs. Urmston, Carstens, Huron, Barstow, Holmes, Sladek, Cummings, Andrews, Hart, Sherman, Haughey, Moore, Hoffmann, and Brunk of The Council; President Luce, President-Elect Corbus, Secretary Foster, Editor Dempster; Dr. Wm. J. Stapleton, Jr., Executive Secretary Burns.

2. *Minutes.*—The minutes of The Council meetings of January 7-8 were read and approved.

3. *The Secretary's Annual Report* was read by Dr. Foster as follows:

SECRETARY'S ANNUAL REPORT—1938

I herewith submit the report of the Secretary for 1938.

During 1938 the various activities of the Michigan State Medical Society were sustained and executed with unusual vigor. Members of the society contributed much time and energy to the solution of the many and ever increasing problems of organized medicine.

Membership

The total paid membership for 1938 was 4,205, with dues of \$49,192.00 accruing to the society. The number of physicians with unpaid dues at the end of 1938 was 115. The membership tabulation for the years of 1937 and 1938 showing net gains and losses, unpaid dues and deaths, is as follows:

1937	1938	Gain	Unpaid	Deaths
3,963	4,205	242	115	45

There are approximately 4,700 potential members of the Michigan State Medical Society in the state. Memberships for 1938 would indicate that about 500 eligible non-members exist at this time. This represents a decrease of 200 from the 700 non-member eligibles reported for 1937.

In 1938, through the efforts of the county societies and membership committee, 242 physicians were added to the membership rolls. This indicates an appreciation, on the part of these physicians, of the benefits of membership in the State Society. I would estimate that the total membership for 1939 should be 4,350.

MEMBERSHIP RECORD

County	1937	1938	Loss	Gain	Unpaid	Deaths
Allegan	22	24	-	2	1	-
Alpena-Alcona-Presque Isle	18	18	-	-	2	-
Barry	15	15	-	-	1	-
Bay-Arenac-Iosco-Gladwin	71	74	-	3	2	2
Berrien	45	62	-	17	2	-

County	1937	1938	Loss	Gain	Unpaid	Deaths
Branch	23	23	-	-	-	-
Calhoun	119	118	1	-	4	3
Cass	16	15	-	-	-	-
Chippewa-Mackinac	23	23	-	-	-	1
Clinton	11	10	1	-	-	-
Delta	20	23	-	3	-	1
Dickinson-Iron	23	24	-	1	-	1
Eaton	29	29	-	-	-	-
Genesee	155	155	-	-	11	1
Gogebic	26	26	-	-	-	-
Grand Traverse-Leelanau-Benzie	33	41	-	8	1	1
Gratiot-Isabella-Clare	35	40	-	5	2	1
Hillsdale	26	25	1	-	-	-
Houghton-Baraga-Keweenaw	38	38	-	-	-	-
Huron-Sanilac	29	26	3	-	1	-
Ingham	134	139	-	5	-	3
Ionia-Montcalm	38	40	-	2	-	2
Jackson	91	97	-	6	-	2
Kalamazoo-Van Buren	126	132	-	6	2	1
Kent	227	236	-	9	5	-
Lapeer	16	14	2	-	-	-
Lenawee	40	44	-	4	-	-
Livingston	19	17	2	-	-	-
Luce	13	11	2	-	-	-
Macomb	39	38	1	-	2	-
Manistee	16	16	-	-	-	-
Marquette-Alger	35	42	-	7	1	-
Mason	10	12	-	2	-	1
Mecosta-Osceola-Lake	17	19	-	2	-	-
Menominee	17	13	4	-	-	-
Midland	11	14	-	3	-	-
Monroe	37	34	3	-	2	1
Muskegon	77	82	-	5	-	3
Newaygo	10	10	-	-	-	-
Northern Michigan	31	31	-	-	1	-
(Antrim-Charlevoix, Emmet, Cheboygan)						
Oakland	125	123	2	-	8	2
Oceana	10	10	-	-	-	-
O.M.C.O.R.O.	14	17	-	3	-	-
(Otsego, Crawford, Oscoda, Montgomery, Roscommon, Ogemaw)						
Ontonagon	6	8	-	2	-	-
Ottawa	33	32	1	-	-	-
Saginaw	96	94	2	-	-	1
Schoolcraft	7	7	-	-	-	-
Shiawassee	33	32	1	-	-	-
St. Clair	47	51	-	4	-	1
St. Joseph	15	19	-	4	-	-
Tuscola	32	32	-	-	-	-
Washtenaw	149	162	-	13	3	1
Wayne	1,592	1,746	-	154	65	13
Wexford-Kalkaska-Missaukee	23	22	1	-	-	1
	3,963	4,205	28	270	115	45
		3,963		28		
		242		242		

Emeritus & Honorary Members..... 42
Paid Members4,205

Total4,247

Deaths During 1938

During 1938 we regretfully record the deaths of the following members:

Barry County—C. S. McIntyre, M.D., Hastings.
Bay County—J. W. Hauxhurst, M.D., Bay City; J. R. Petty, M.D., Au Gres.

MID-WINTER MEETING OF THE COUNCIL

Calhoun County—R. H. Steinbach, M.D., Wm. M. Dugan, M.D., of Battle Creek.
Chippewa-Mackinac—C. J. Ennis, M.D., Sault Ste. Marie.
Delta County—L. P. Treiber, M.D., Escanaba.
Dickinson-Iron County—Joseph A. Crowell, M.D., Iron Mountain.
Genesee County—W. G. Bird, M.D., Flint.
Grand Traverse-Leelanau-Benzie County—Ernest B. Minor, M.D., Traverse City.
Gratiot-Isabella-Clare County—M. C. Hubbard, M.D., Vestaburg.
Hillsdale County—D. W. Fenton, M.D., Reading.
Ingham County—H. C. Rockwell, M.D., Lansing; C. F. Culver, M.D., Howell; R. M. Olin, M.D., East Lansing.
Ionia-Montcalm County—Leon E. Duval, M.D., Ionia; A. I. Laughlin, M.D., Clarksville.
Jackson County—Maitland N. Stewart, M.D.; S. W. Woyt, M.D., Jackson.
Kalamazoo-VanBuren County—G. M. Braden, M.D., Scotts.
Mason County—Frederick W. Heysett, M.D., Ludington.
Monroe County—S. O. Newcombe, M.D., Ida.
Muskegon County—Frank Boonstra, M.D., J. G. Bowers, M.D., Muskegon; A. P. Poppen, M.D.
Oakland County—John Bachelor, M.D., Oxford; J. O. Gaston, M.D., Rochester.
Saginaw County—Pearl S. Windham, M.D., Saginaw.
St. Clair County—J. F. Martinson, M.D., Port Huron.
Washtenaw County—George F. Inch, M.D., Ypsilanti.
Wayne County—Claude G. Burgess, M.D., Robert E. Cummings, M.D., R. S. Dupont, M.D., Wm. A. Hackett, M.D., Henry J. Hartz, M.D., Hyde G. Warren, M.D., Charles A. Lenhard, M.D., Lewis S. Potter, M.D., Wesley J. Reid, M.D., Dayton D. Stone, M.D., A. B. Toaz, M.D., C. C. Wright, M.D., Detroit; R. C. Humphrey, M.D., Wyandotte.
Wexford-Kalkaska-Missaukee County—H. C. Buster, M.D., Baldwin.

Financial Status

The fiscal year closed on December 24, 1938, and the statement of our certified accountants, Ernst & Ernst (published in the JOURNAL), shows the financial status of that date. The following facts are noted:

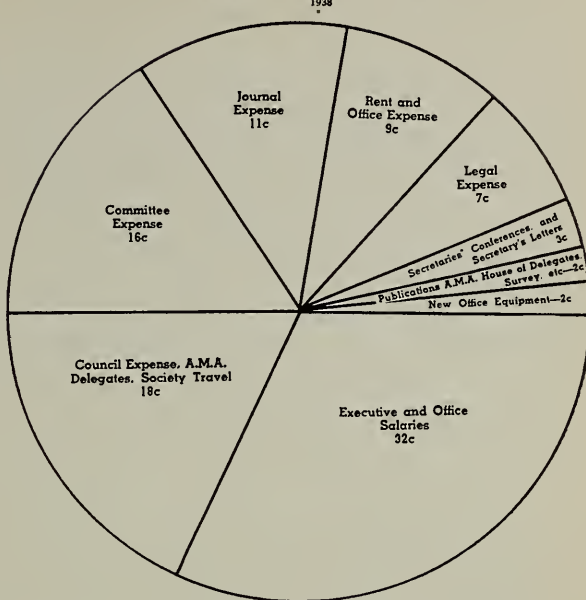
1. The assets of the society are \$43,821.55 as compared to \$32,282.39 in 1937. The net worth is shown as \$26,601.84, an increase, from the figure of \$11,764.39 of a year ago, of \$14,837.45. Assignment of \$3,500.00 to the Medico-legal defense fund would decrease the net worth by that amount and show an actual net worth increase of \$11,337.45. This increase would just about represent the increase of dues and the profit from the annual meeting.
2. *The Medical Defense Fund* shows a balance of \$9,225.30 as compared to \$12,048.60 of a year ago. This is a decrease of \$2,823.30. No portion of dues was credited to the Medico-legal defense fund in 1938, although the sum of \$3,500.00 was authorized for that fund. The securities assigned to this fund are now \$12,426.50.
3. *THE JOURNAL* advertising sales in 1938 totaled \$10,269.20 or an increase of \$721.09 over 1937. The cost of printing *THE JOURNAL* in 1938 was \$10,144.90, an increase of \$179.86 over 1937. The net income of *THE JOURNAL* appears as \$1,942.98, an increase of \$736.13 over 1937. This, however, includes the allocation for subscriptions, which figure is \$6,151.12.

The increase in dues in 1938 partially restored the financial situation, which was somewhat depleted in 1937 by increased society activities. The continued increase in dues will scarcely maintain the situation in 1939, which forecasts increased operating expenses of rent, office personnel and enlarged committee activities.

The 1938 Annual Meeting

Another record attendance was broken at the Detroit Session. There was a physician attendance of 1,594, with a total registration of 2,077. The General Session type of Scientific program con-

DISTRIBUTION OF YOUR DUES DOLLAR



tinued its interest appeal. The registrants were very generous in their attention to the technical exhibitors and developed an even greater goodwill among that group. In spite of a greatly augmented program of out-of-state speakers, with its increased expenses, the exhibits provided a substantial profit to the society.

County Secretary Conferences

Two County Secretary Conferences were held in 1938. One in Lansing on January 23, 1938, and one in Detroit September 20, 1938, on the occasion of the annual meeting. These conferences were arranged with a view to developing the County Secretaries as key men in their local groups. The attendance at the conferences was evidence of the interest on the part of the County officers in the programs of the State Society.

Committees

Each of the twenty-five committees of the state society performed its duties with despatch and efficiency throughout the year. The constantly expanding program of the Michigan State Medical Society has made great demands upon the time and energy of all committeemen, and they have accepted their responsibility in a most creditable manner.

Society Activity

During the past year, your two secretaries have visited each of the fifty-four county societies at least once, and were usually accompanied by members of the Council, other officers and committeemen. Most of the components are well organized and active. In view of the many activities of a scientific and sociologic character, the county societies, for the most part, are holding regular meetings and demonstrating an active interest in the affairs of the state society.

During 1938 the Schoolcraft society was merged with the Delta county society. This affiliation has been of advantage to both groups. Late in 1938, was formed the Van Buren County Medical Society—a group of 32 former members of the Kalamazoo Academy of Medicine.

The Speakers Bureau of the State society provided eighty-eight speakers for county society meetings, the twenty-six speakers for lay groups, a total of 114 assignments.

MID-WINTER MEETING OF THE COUNCIL

The Placement Service, which has been in operation two years, is receiving an ever increasing number of inquiries from both physicians and communities.

The County Societies have been apprised of the state society's activities through the publication of sixteen secretary's letters. Twelve of these were sent to county secretaries and four to the general membership of the Michigan State Medical Society. These communications also carried the items promulgated by the Public Relations Committee and served as its bulletin.

There were twenty-two State Society Night meetings held during 1938. During the past year, several county societies have instituted, through local educational institutions, classes in Public Speaking. These classes should help materially in providing more able speakers, who can publicize the views and activities of the state society.

Your secretary concludes his report with the following recommendations: that

1. A sustained effort be made to interest every eligible physician in membership in his county and state society.
2. The idea of State Society Night meetings be continued, but that, where possible, these be developed as district or regional meetings, embracing several societies.
3. The Speakers Bureau be developed with "Spot Speakers" throughout the state, each society assuming the responsibility of contributing personnel to the bureau.
4. The annual meeting program be continued as developed during the past two years—a program of General Sessions.

Your secretary cannot express too sincerely to the council his appreciation of its fine coöperation and encouragement during the past year. All of the committees of the state society are to be commended for their splendid spirit, untiring efforts and successful execution of difficult tasks. To Executive Secretary Wm. J. Burns for his inspiring enthusiasm, and to the office personnel for their willing and generous assistance, your secretary is truly grateful.

Respectfully submitted,
L. FERNALD FOSTER, M.D., *Secretary*
* * *

The report was referred to the County Societies Committee.

4. *Treasurer's Annual Report* was presented by Treasurer Wm. A. Hyland as follows:

TREASURER'S REPORT

As Treasurer of the Michigan State Medical Society, I wish to submit the following report for the year 1938.

As required by the by-laws of the society, the usual indemnity bond was filed with the state secretary.

The bond committee (composed of Henry R. Carstens, M.D., Vernon M. Moore, M.D., and William A. Hyland, M.D.) at a meeting in August decided to dispose of the Society's New England Gas and Electric Co. bonds as soon as an opportunity arises and a reasonable figure can be obtained. With this in mind, we are watching the market and expect to dispose of them sometime during the current year.

The bonds have stood up very well during the past year—the present value is practically the same as a year ago. In addition, during November, I received a check for the National Electric Power Co. debentures in the amount of \$262.79 and turned it over to the secretary, this being the first and

final distribution by the receivers of these debentures.

The receipts for coupons for the securities for the year 1938 totaled \$1,050, also dividend check in the amount of \$14.40 from the National Gas and Electric Corporation stock—making a total of \$1,064.40 which was forwarded to the secretary as usual.

The total bond value of the Michigan State Medical Society, plus the dividends, the Receiver's check of the National Electric Power Co. and credit of \$93.98 at the Grand Rapids Trust Co. for exchange of bonds during 1937 but credited in 1938, brings the total Treasury value for 1938 to \$30,200.17.

The following securities were held by the Michigan State Medical Society of the end of 1938:

GENERAL FUND	QUOTED MARKET PRICE
BONDS	
American Telephone & Telegraph Company.....	\$ 2,100.00
Associated Gas and Electric Corporation	500.00
Central Illinois Public Service Company.....	2,050.00
Commercial Investment Trust Corporation	2,110.00
Consumers Power Company	2,095.00
Grand Rapids Affiliated Corporation	650.00
New England Gas and Electric Company	527.50
Standard Oil Company—New Jersey.....	1,050.00
United Light and Power Company.....	2,080.00
United States of America Savings Bonds	3,040.00
Unclipped Coupons	150.00
	\$16,352.50
MEDICO-LEGAL DEFENSE FUND BONDS	
The Government of the Dominion of Canada due in 1945	\$ 1,030.00
The Government of the Dominion of Canada due in 1967	980.00
Canadian Pacific Railway Company	1,570.00
Detroit Edison Company	2,200.00
Grand Rapids Affiliated Corporation	650.00
New England Gas and Electric Company.....	527.50
New York Central Railroad Company.....	1,360.00
Southern Pacific Company	1,100.00
United States of America Savings Bonds.....	2,660.00
Unclipped coupons	25.00
	\$12,102.50
STOCK	
National Gas & Electric Corporation—common—96 shares	324.00
	\$12,426.50
	\$28,779.00

Respectfully submitted,
WM. A. HYLAND, M.D., *Treasurer*
* * *

The report was referred to the Finance Committee.

5. The *Editor's Annual Report* was presented by Dr. J. H. Dempster as follows:

EDITOR'S ANNUAL REPORT

"A year ago a request was made to keep THE JOURNAL within 100 pages a month, including advertising matter. To indicate how well this injunction was obeyed by the business office and the editor, the actual number of printed pages for 1938 was 1,150. An endeavor has been constantly made to make THE JOURNAL reflect the attitude, editorially, of organized medicine in this state. I have written sixty editorials during the year, an average of five for each month. Of these, about forty discussed some phase of medical economics or medical sociology in its broader aspects. The department of County Activity conducted by the secretary and executive secretary have, besides editorial comment, presented a faithful account of the deliberations of the council and the executive committee, as well as the discussions of the House of Delegates in the November JOURNAL. Every member of the society has had an opportunity to familiarize himself with the work of organized medicine during the year. There were published 203 contributions on the scientific and clinical phases of medicine. This is due largely to the number of clinical histories

and short papers. We have encouraged the briefer contribution as distinct from that which aims at exhaustive discussion, owing to the fact that no magazine article, no matter what the length, can exhaust any subject. The briefer the paper, the greater the possibility that it will be read and not placed aside for that leisure that never comes to the average doctor. The demand for space mentioned in other years is still as urgent as ever and can be met only by briefer contributions written with the greatest of care. A number of features conceived last year are included in the contents of the JOURNAL the current year, notably the monthly clinical staff conference of the Department of Medicine of the University of Michigan and brief contributions from the Committee on Maternal Welfare of the Michigan State Medical Society.

The editor expresses his appreciation of the assistance of the Publications Committee, the secretary and executive secretary and the publisher who has continued the excellence of former years in producing a journal that is typographically beyond reproach.

All of which is respectfully submitted,

J. H. DEMPSTER, M.D., *Editor*.

* * *

The report was referred to the Publications Committee.

6. *The Annual Report of the Medico-Legal Committee* was presented by Dr. Stapleton and referred to the County Societies Committee, except that portion having to do with finances, which was referred to the Finance Committee.

7. *Dr. I. W. Greene's letter* was read by Dr. Luce; Dr. Greene recommended that someone be appointed in his place on the Executive Committee. Motion of Dr. Cummings, seconded by several that a message from this council be sent to Dr. Greene wishing his continued improvement in health and that he will be able to serve the society in the future as in the past. Carried unan.

The Chair appointed Dr. Haughey as Acting Chairman of the County Societies Committee.

8. *Special Committee on Changes in Medico-Legal Activity.* Dr. Andrews reported that the committee had met with Attorney Payette, and he read his legal opinion. The report was referred to the County Societies Committee to discuss with the Special Committee and with Dr. Stapleton.

9. Other Committee Reports:

(A) Legislative Committee:

(a) The proposed amendments to the pre-nuptial physical examination law were approved on motion of Dr. Haughey, seconded by several and carried unanimously.

(b) Report was given on conference of Dr. Ramsey and Mr. Brown re amendments in the Afflicted Child Law.

(c) Report on proposed welfare laws was presented.

(d) Dr. Luce reported on meeting in Washington, D. C. of the Committee of Seven: All phases of the proposed National Health Plan were approved in principle, except compulsory health insurance; however, it was felt that the same type of service could be rendered without expending so much money.

(e) The bill sponsored by the Waterworks Operators was approved as a worthy public health measure on motion of Drs. Carstens-Hart. Carried unanimously.

(f) State Accident Fund case was discussed. Motion of Drs. Carstens-several that this matter be referred to the Chairman of The Council, the Secretary and Executive Secretary for a

fuller investigation and report at the next meeting of the Executive Committee. Carried unanimously.

(B) Mental Hygiene Committee: Report was read by Dr. Hoffmann. Referred to Finance Committee.

(C) Preventive Medicine Committee: Report was read by the Executive Secretary. To Finance Committee. Motion of Drs. Hart-Andrews that the recommendations re typhoid be approved. Carried unanimously.

(D) Public Relations Committee: Report read by Dr. Foster. To Finance Committee.

(E) Membership Committee report was presented. To Finance Committee.

(F) Radio Committee report was presented and discussed. Motion of Drs. Holmes-Haughey that this be referred back for additional information. Carried unanimously.

(G) Liaison with Hospitals: Report was read.

(H) Cancer Committee report was read. The Sub-committee is to be discussed at a later session of The Council. Budgetary item to Finance Committee.

(I) Joint Committee: Report read by Dr. Corbus. Budgetary item to Finance Committee.

(J) Committee on Scientific Work presented by Dr. Foster, who urged the Councilors to explain the merits of the Technical Exhibit to detail men.

10. *The Publications Committee* report was read by Dr. Brunk, as follows:

REPORT OF THE PUBLICATIONS COMMITTEE—1938

You have heard the editor's annual report. Early in the year (1938), a questionnaire was mailed to the members of the Michigan State Medical Society, for the purpose of ascertaining the attitude of the members, to THE JOURNAL. Over 300 replies were received, which we presume to be a cross-section of opinion of the membership. Replies have been tabulated, together with comments, which accompanied them, and have been published in the October number of THE JOURNAL. You have, doubtless, read the article. Many suggestions were made and of these, a large number either were in effect at the time, or have since been carried out. Some, of course, are conflicting. For instance, one number calls for more articles on the business side of medicine; another states, "There is no such thing as the business side of medicine." Obviously, where opposite requests are made, it is impossible to satisfy all. Some would prefer THE JOURNAL, printed on paper that is not glossy, claiming that it would be easier to read, and some call for more illustrations. The fine calendered paper is necessary for the fine half-tones. It would be impossible, for instance, to print photomicrographs on coarse paper. Many expressed entire satisfaction with THE JOURNAL, and a surprising number declared that they read THE JOURNAL through from cover to cover. Among the questions asked was, "Do you fill out sample coupons?" Forty-seven replied in the affirmative; fifty-seven in the negative; and thirty-five said, occasionally. We draw attention to the fact that THE JOURNAL is only possible from the dollar and a half appropriated from the annual dues, and the sale of advertising. An effort has been made to include in THE JOURNAL only high-grade ethical advertising. This is your JOURNAL, and its continuance and enlargement will depend largely on the advertising patronage, and that, in turn, depends upon the extent to which the members of the society patronize the advertisers.

It is almost trite to say that we are living in changing times, an era of rapid transition. This calls for more than ordinary editorial judgment,

if something does not appear as permanent record, that will not eventually call for a change of attitude. We feel that the editor has sensed this fact and has therefore avoided extravagant statements or positive assertion where such is not warranted. THE JOURNAL, each month, has presented the deliberations and conclusions of the Executive Committee of the Council, so that each reader has had the opportunity of following, from month to month, the work of this managing committee. The President's Page has afforded him, each month, an outlet for his personal message to the profession as a whole. This is a feature that is highly commendable and, therefore, of survival value.

Respectfully submitted,

A. S. BRUNK, M.D., *Chairman*
F. T. ANDREWS, M.D. ROY H. HOLMES, M.D.
T. E. DEGURSE, M.D. J. EARL MCINTYRE, M.D.

* * *

The report was referred to Publications Committee.

Recess: 12:30 P.M.

SECOND SESSION

11. The Council reconvened at 3:30 p.m. In addition to those present at the first session, the following were present: Drs. DeGurse, McIntyre, Riley and Hyland.

12. Additional Committee Reports:

(K) Postgraduate Committee: Report by Dr. Cummings, who asked for suggestions from all present. Budgetary item to Finance Committee.

13. *Reference Report of Committee on County Societies* was read by Dr. Haughey, as follows:

REFERENCE REPORT OF COMMITTEE ON COUNTY SOCIETIES

(a) *Secretary's Report* was read and discussed. This Committee suggests that the Executive Office send a list of members of the MSMS as of January 1, 1939, by county, to the County Secretaries, and ask the secretary of the County Society to add the names of any other physicians in the county which are not listed, and to give the reasons why they are not members.

The Committee recommends that the County Secretaries make prompt notification of deaths, removals and changes of status of their members, to the Executive Office.

The Committee recommends that the County Secretaries' Conference (one in January and one at the time of the Annual Convention) be continued. We also recommend that a mid-winter meeting of the Secretaries of the Upper Peninsula County Medical Societies be held at a suitable time and place, and that at least one of the State Secretaries attend.

The Committee feels that the suggestion of writing letters to Congressmen and having a definite plan of what to write, is excellent.

The Committee recommends that more county society reports should be published in THE JOURNAL and that these reports should be made more interesting and not so brief as in the past.

The Committee wishes to compliment the Secretary upon his excellent and comprehensive report.

(b) *Medico-Legal Report* was discussed. The Committee adopted the following resolution:

Whereas, we may be assessed a high rate of taxation on account of operation of the MSMS Medico-Legal Defense, and

Whereas, attorneys tell us that the only way we can be free from paying these taxes is to discontinue this activity, and

Whereas, a large majority of the members of the MSMS carry their own defense insurance,

This Committee recommends that the House of

Delegates at its next session (special or regular) amend the by-laws as suggested by our attorney so as to eliminate the offering of defense as a part of the benefits of membership in the Michigan State Medical Society.

We further suggest that the Medico-Legal Committee (to be known as the "Grievance Committee") be retained as a standing committee of the State Society, but that the details of its activities be turned over to the Executive Office in Lansing.

We also recommend that the funds which have been set aside for medical defense be retained in this fund to care for cases, the cause of action for which shall have arisen previous to the termination of this feature of our work, and any balance to be transferred to the general fund.

Respectfully submitted,

WILFRID HAUGHEY, M.D., *Acting Chairman*
C. D. HART, M.D.
W. H. HURON, M.D. E. F. SLADEK, M.D.

* * *

The first part of the report re the Secretary's Annual Report was approved on motion of Drs. Haughey-Hart. Carried unanimously.

The second part of the report re Medico-Legal Activity was thoroughly discussed by The Council. Motion of Drs. Huron-Cummings that the last paragraph, having to do with the disposition of the Medico-Legal Fund, be referred back to the Special Committee on Changes in Medico-Legal Activity, to obtain exhaustive legal opinion on same.

The balance of the report was accepted as read. Carried unanimously.

14. *Reference Report of Committee on Publications* was read by Dr. Brunk, section by section.

REFERENCE REPORT OF PUBLICATIONS COMMITTEE

Your Committee on Publications met and respectfully recommends to The Council:

1. That the Editor's Report and Publications Committee Report be approved and that Dr. Dempster be commended for his efforts, motion of Drs. Sherman-Andrews.

2. That the Editor do not accept over one and one-half pages each from the State Department of Health and the Woman's Auxiliary for publication in THE JOURNAL each month, motion of Drs. Holmes-Andrews.

3. That the color of the cover of THE JOURNAL be changed each month, motion of Drs. Holmes-Andrews.

4. That The Council offer individual advertising solicitors a commission on new advertising obtained for THE JOURNAL, motion of Drs. Andrews-Holmes. Dr. Foster and Mr. Burns are to discuss this matter with Will Braun and H. L. Sandberg of the A.M.A. in Chicago on February 11.

5. That the suggestions of the Publishing Company be accepted and envelopes for THE JOURNAL be eliminated, saving \$150 per year, motion of Drs. Andrews-Holmes.

Respectfully submitted,

A. S. BRUNK, M.D., *Chairman*
F. T. ANDREWS, M.D. T. E. DEGURSE, M.D.
R. H. HOLMES, M.D. G. A. SHERMAN, M.D.

* * *

SOCIETY BUDGET FOR 1939

INCOME:

4,200 members at \$12	
(less 1/2 and 1/4 dues of new members).....	\$ 49,400.00
Interest	700.00

Total income	\$ 50,100.00
Less allocation to THE JOURNAL at \$1.50..	6,300.00

TOTAL NET INCOME	\$ 43,800.00
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MID-WINTER MEETING OF THE COUNCIL

APPROPRIATIONS:

<i>Administrative and General:</i>	
Medical Secretary Salary	\$ 2,400.00
Executive Secretary Salary	7,000.00
Other Office Salaries	5,820.00
Extra Office Help	900.00
Office Rent and Light	1,284.00
Printing, Stationery, Supplies	1,000.00
Postage	800.00
Insurance and Fidelity Bonds	190.00
Auditing	250.00
New Equipment and Repairs	300.00
Telephone and Telegraph	500.00
Legal	750.00
Miscellaneous	175.00
Total Admin. and General	\$ 21,369.00
Less Journal office expense	1,800.00
	\$ 19,569.00
<i>Society Expenses:</i>	
Council Expense	\$ 3,000.00
Delegates to A.M.A.	800.00
Secretaries Conferences	850.00
General Society Travel Expense	2,000.00
Secretary's Letters	500.00
Publications Expense	500.00
Reporting Annual Meeting and Special Session	275.00
Education Expenses	3,000.00
Sundry Society Expenses	750.00
Organizational Expense	3,000.00
Contingent Fund	1,331.00
Total Society Expense	\$ 16,006.00
Less gain from Annual Meeting	1,500.00
Net Society Expense	\$ 14,506.00
<i>Committee Expenses:</i>	
Legislative Committee	\$ 3,500.00
Com. on Distribution of Med. Care	2,000.00
Cancer Committee	250.00
Preventive Medicine Committee:	
(Including Adv. on Syphilis and Adv. on Tuberculosis Control)	200.00
Radio Committee	25.00
Postgraduate Medical Education	1,400.00
Maternal Health Committee	150.00
Public Relations Committee	700.00
Ethics Committee	100.00
Membership Committee	25.00
Joint Com. on H. E.	500.00
Adv. to Woman's Auxiliary	50.00
Sundry Other Committees	325.00
Committee Reserve	500.00
Total Committee Expenses	\$ 9,725.00
GRAND TOTAL	\$ 43,800.00
BUDGET FOR "THE JOURNAL"—1939	

INCOME:

Subscriptions from members	\$6,300.00
Other subscriptions	100.00
Advertising	9,500.00
Reprint Sales	1,500.00
Journal Cuts	125.00
	\$17,525.00

EXPENSES:

Editor's salary	\$3,000.00
Printing and mailing	9,500.00
Cost of reprints	1,400.00
Discounts and commissions on advertising	1,150.00
Postage	250.00
General office expense	1,800.00
Reserve	425.00
	\$17,525.00

Motion of Drs. Andrews-Haughy that the report as a whole be adopted. Carried unanimously.

REFERENCE REPORT OF FINANCE COMMITTEE

15. *Report of Finance Committee* was read by Dr. Carstens. The Ernst & Ernst statement was studied. Treasurer Wm. A. Hyland commented briefly on his report and the condition of the bonds. Motion of Drs. Cummings-McIntyre that the Bond Committee be empowered to dispose of certain bonds, at its discretion. Carried unanimously.

The budget for 1939 was presented and discussed item by item. Motion of Drs. Holmes-Sladek that the salary of Executive Secretary Burns be set at \$7,000 per annum in the budget outlined. Carried unanimously. Motion of Drs. Sherman-Hart that the salaries of the employees be set as recommended by the Finance Committee: Leet, \$2100; Shepline, \$1500; Tracy, \$1320; Rehm, \$900. Carried unani-

mously. Motion of Drs. McIntyre-Cummings that the recommendations of the Finance Committee on administrative and General appropriations be approved. Carried unanimously. Motion of Drs. Holmes-Andrews that the recommendations of the Finance Committee on Society Expense be approved. Carried unanimously. Motion of Drs. DeGurse-Sladek that the recommendations of the Finance Committee on Committee Expense be approved. Carried unanimously. Motion of Drs. Cummings-Sherman that the budget as recommended by the Finance Committee be adopted as a whole. Carried unanimously.

Journal Budget. Motion of Drs. Holmes-Sladek that the recommendations of the Finance Committee re THE JOURNAL be adopted as a whole. Carried unanimously.

THIRD SESSION

16. *The Council reconvened at 8:15 p.m.*—Minutes of the Morning and Afternoon Sessions of The Council were read and approved.

17. *Voluntary Group Hospitalization* and Group Medical Care. Dr. H. A. Miller, Chairman of the Legislative Committee reported on legislative activity relative to group hospitalization and group medical care. The proposed enabling act for group medical care was read in its entirety. The proposed enabling act for group hospitalization submitted by the Michigan Hospital Association was also read in its entirety. Dr. Miller read the report of the meeting of representatives of the MSMS with representatives of the Michigan Hosp. Ass'n in Flint on Sunday, January 22. Further discussion of group hospitalization and group medical care was deferred until January 29, when The Council is to meet with representatives of the Michigan Hospital Ass'n.

18. *The American Academy of Pediatrics'* proposal re an immunization program was presented by Secretary Foster. Motion of Dr. Holmes, seconded by several, that the program as presented be approved. Carried unanimously.

19. *Report of the Chairman of the Contact Committee* to Governmental Agencies, Dr. Henry Cook, was read by Secretary Foster. Motion of Drs. Andrews-McIntyre that the report be accepted. Carried unanimously. The Council recessed at 10:50 p.m.

FOURTH SESSION January 29, 1939

20. *Roll Call.*—The meeting was called to order at 10:05 a.m.

The Minutes of the session of January 28 were read and approved.

21. *Bills Payable.*—The statement from attorneys of the Medico-Legal Committee was presented, and motion was made by Drs. Holmes-Carstens that the retainer fee be paid. Carried unanimously. The bill of Douglas, Barbour, Desenberg and Purdy for legal services was presented and discussed. Motion of Drs. Andrews-Carstens that the bill be paid. Carried unanimously.

Bills payable for the month were presented and motion was made by Drs. Carstens-McIntyre that they be paid. Carried unanimously.

22. *Special Committee on Medico-Legal Activity.*—After discussion of the activities of the Medico-Legal Committee, the Chair appointed Dr. V. M. Moore to the Special Committee on Medico-Legal Activity to fill the vacancy left by the resignation of Dr. Greene. The Committee is now composed of Drs. Holmes, chairman; Andrews and Moore.

23. *Group Hospitalization.*—Mr. Ralph M. Hueston, President of the Michigan Hospital Association, Mr. Wm. J. Griffin, Mr. Robt Greve, and Mr. John Mannix were introduced to the members of

the Council. The protocol developed at the meeting in Flint on January 22, which defines professional medical service, was read. Mr. Hueston explained the intentions of the Hospital Association in its group hospitalization plans with relation to the technical service and professional service. Nurse anesthetists were discussed thoroughly. The Michigan Society for Group Hospitalization has agreed not to include anything in its contract with the subscriber re x-ray service. Motion of Drs. Moore-several that the following sentence be added to the protocol, which has the approval of the representatives of the Michigan Hospital Association present: "Notwithstanding the above definition, it is agreed that the hospital program will not include any x-ray service." Carried unanimously. Motion of Drs. Andrews-Sladek that the protocol with the above addition be approved. Carried, Dr. McIntyre dissenting.

The MSMS proposed enabling act for group medical care was discussed with the representatives of the Michigan Hospital Association. The MHA proposed enabling act for group hospitalization was presented.

Motion of Drs. Moore-McIntyre that The Council of the Michigan State Medical Society approve the Group Hospital plans as presented by the Michigan Society for Group Hospitalization, (the plan of the Michigan Hospital Association) and expresses itself to be in accord with the plan and to lend its support. Carried unanimously.

Motion of Drs. Holmes-McIntyre that the representatives of the Michigan Hospital Association be requested to present the proposed enabling act for group medical care drafted by the MSMS, to the Michigan Hospital Association for its endorsement and support. Carried unanimously.

Mr. Hueston thanked The Council on behalf of the Michigan Hospital Association for the courtesy extended to him and other representatives of the MHA. Mr. Hueston stated that the MHA will work for the passage of both enabling acts.

Mr. Mannix, newly appointed Executive Director of the Michigan Society for Group Hospitalization, outlined the method of operation and reviewed the experience of group hospitalization in the U. S.

ELECTIONS

24. (a) *Election of Secretary.*—Motion of Drs. Andrews-several that Dr. L. Fernald Foster of Bay City be re-elected Secretary. Carried unanimously.

(b) *Election of Treasurer.*—Motion of Drs. Moore-several that Dr. Wm. A. Hyland of Grand Rapids be re-elected Treasurer. Carried unanimously.

(c) *Election of Editor.*—Motion of Drs. Holmes-McIntyre that Dr. James H. Dempster of Detroit be re-elected Editor of THE JOURNAL. Carried unanimously.

(d) *Appointment of Executive Secretary.*—Motion of Drs. Cummings-Sladek that Mr. Wm. J. Burns be re-appointed Executive Secretary. Carried unanimously.

(e) *Resignation of Dr. Greene.*—From Chairmanship of the County Societies Committee and membership on the Executive Committee was presented. Motion of Drs. Brunk-McIntyre that Dr. Greene's resignation as stated above be accepted with great regret that Dr. Greene does not feel able to carry on with these duties. Carried unanimously.

Election of County Societies Committee Chairman.—Dr. McIntyre-several moved that Dr. Wilfrid Haughey of Battle Creek be nominated. Motion of Drs. Carstens-Cummings that the nominations be closed and a unanimous ballot be cast for Dr. Haughey. It was so cast by the Secretary.

(f) *Medico-Legal Defense Committee.*—Motion of Drs. Moore-Cummings that Dr. Wm. R. Torgerson of Grand Rapids and Dr. S. W. Donaldson of Ann Arbor be elected members of the Medico-Legal Committee. Carried unanimously. Motion of Drs. Holmes-Barstow that Dr. F. T. Andrews of Kalamazoo be the third member of the Committee. Carried unanimously.

Motion of Drs. Barstow-DeGurse that Dr. Angus McLean and Dr. Wm. J. Stapleton, Jr. be re-elected to the Committee. Carried.

Motion of Drs. Moore-Cummings that Dr. Torgerson be elected Chairman. Carried unanimously.

Motion of Drs. Holmes-Carstens that the salary of the Chairman be set at zero. Carried unanimously.

25. *Tour of U. P. County Societies.*—Dr. Huron spoke of the appreciation of the officers of the Upper Peninsula Societies for the visit of MSMS officers each year. Motion of Drs. Huron-Sladek that the annual tour of the Upper Peninsula Medical Societies be authorized for 1939. Carried unanimously.

Recess for dinner: 12:50 p. m.

FIFTH SESSION

The Council reconvened at 2:40 p. m.

26. *Release to newspapers* re agreement of Michigan State Medical Society and Michigan Hospital Association on the subject of group hospitalization and group medical care was read by President Luce. Motion of Drs. Andrews-McIntyre that the story be approved with the addition of the following sentence in the second paragraph: "Plans for group medical service sponsored by the Michigan State Medical Society will soon be instituted by that organization," and released to all newspapers of the State. Carried unanimously.

27. *Cancer Subcommittee.*—The list of nominations by the Cancer Committee of men from all areas of the state was presented. Motion of Drs. Carstens-McIntyre that the list be approved and that list be designated as Speakers Bureau of Cancer Committee, and that the Secretary notify the Committee that further names be considered as additions to it on advice of county medical societies. Carried unanimously.

28. *Interne Training.*—Dr. McIntyre remarked briefly re interne training. Letter of Dean Allen of Wayne University Medical College was read.

29. *Income Tax Status.*—Motion of Drs. McIntyre-Andrews that another letter be directed to the Department of Internal Revenue and that additional legal advice be sought in the matter. Carried unanimously.

30. *Adjournment.*—The Chair thanked all for their attendance, good attention and advice, and adjourned the meeting at 4:30 p. m.

The Poor Fish

Herr Hitler and Signor Mussolini sat fishing together on one side of the lake, and Mr. Chamberlain on the other. But while the British Prime Minister caught fish after fish, the two dictators could not even raise a bite.

"How do you do it, Neville?" they shouted across the water. "There don't seem to be any fish on our side."

"The fish are there all right," replied Mr. Chamberlain, "but they aren't open their mouths."—*London News-Letter.*

REPORT OF AUDITORS FOR 1938

REPORT OF AUDITORS FOR 1938

WE have made an examination of the balance sheet of MICHIGAN STATE MEDICAL SOCIETY as at December 24, 1938, and of the statements of income and expense for the year ended at that date. In connection therewith, we examined or tested accounting records of the Society and other supporting evidence and obtained information and explanations from the Executive Secretary and employees. We also made a general review of the accounting methods and of the operating and income accounts for the year and made certain certain test checks of the records of cash transactions and data supporting the operating and income accounts as hereinafter outlined, but we did not make a detailed audit of the transactions.

The Society was organized under the laws of the State of Michigan on September 17, 1910, as a corporation not for pecuniary profit. It is affiliated with the American Medical Association and charters county medical societies within the State of Michigan. The purposes of the Society are the promotion of the science and art of medicine, the protection of public health and the betterment of the medical profession. In the furtherance of these purposes, the Society publishes THE JOURNAL of the Michigan State Medical Society.

Balance Sheet

A summary of the balance sheets at December 24, 1938, and December 24, 1937, follows:

ASSETS	DEC. 24, 1938	DEC. 24, 1937	INCREASE DECREASE	
Cash	\$ 9,650.78	\$ 1,473.45	\$ 8,177.33	
Notes and accounts receivable.....	5,274.35	920.48	4,353.87	
Inventory		834.00	834.00	
Securities—at cost, less reserve.....	28,779.00	28,978.00	199.00	
Deferred charges	117.42	76.46	40.96	
	<u>\$43,821.55</u>	<u>\$32,282.39</u>	<u>\$11,539.16</u>	
LIABILITIES				
Note payable		\$ 3,500.00	\$ 3,500.00	
Accounts payable	\$ 1,284.04	2,855.53	1,571.49	
Liability for funds administered.....	39.37	39.37		
Unearned income	6,671.00	2,074.50	4,596.50	
Reserve for Medico-Legal Defense Fund.....	9,225.30	12,048.60	2,823.30	
Net worth	26,601.84	11,764.39	14,837.45	
	<u>\$43,821.55</u>	<u>\$32,282.39</u>	<u>\$11,539.16</u>	

Notes receivable for dues represent the uncollected portions of notes taken in settlement of 1931, 1932 and 1933 dues. No payments were received on these notes during the year ended December 24, 1938.

Accounts receivable for advertising, reprints and cuts were analyzed as to date of charge and are classified in comparison with the balances at December 24, 1937, as follows:

DATE OF CHARGE	DECEMBER 24, 1938		DECEMBER 24, 1937	
	Amount	Per Cent	Amount	Per Cent
October, November and December.....	\$ 946.58	73.26%	\$ 981.51	70.59%
July, August and September.....	198.50	15.37%	100.45	7.23%
January to June, inclusive.....	22.47	1.74%	10.25	.74%
Prior to January 1.....	124.45	9.63%	298.08	21.44%
TOTAL.....	<u>\$1,292.00</u>	<u>100.00%</u>	<u>\$1,390.29</u>	<u>100.00%</u>

The balances due from county societies represent dues collected for the Society by two county societies and impounded in depository banks. As funds are released by the banks, the Society's share is to be forwarded by the county societies. No payments were received during the year on these two accounts. Accounts receivable from exhibitors for space at the 1939 annual meeting include only accounts with exhibitors who have made deposits on the spaces reserved for them. In prior years, reservations have not been taken prior to the close of the year. The income from the sale of this space has been deferred to the 1939 period. The collectibility of the notes and accounts receivable was discussed with the Executive Secretary and, in our opinion, the reserve in the amount of \$425.00 is sufficient to provide for collection losses anticipated at the date of this report.

A schedule of securities owned is included in a later section of this report and sets forth the principal amount, cost and quoted market prices at December 24, 1938. Unlisted securities have been val-

ued from information furnished by brokers as to the current bid and sale prices. The only change during the year in the securities owned by the Society was occasioned by the receipt of a first and final dividend on bonds of the National Electric Power Company, in the principal amount of \$5,000.00, held in the General Fund of the Society. The net loss on these securities in the amount of \$4,462.21 was practically offset by a reduction in the reserve to reduce securities to aggregate quoted market prices at December 24, 1938. The reserve applicable to securities of the Medico-Legal Defense Fund has been increased in the amount of \$648.00. The net effect of the disposal of securities and adjustment of the reserve for securities is shown in the following summary:

	Total	General Fund	Medico-Legal Defense Fund
Loss on disposal of securities..	\$4,462.21	\$4,462.21	.....
Change in reserve for securities	4,418.50	5,066.50	648.00
NET LOSS ON SECURITY TRANSACTIONS \$	43.71	\$ 604.29	\$648.00

None of the bonds owned by the Society are in default. Matured coupons not cashed at December 24, 1938, have been included at face amount, but no other accrued interest receivable has been included in the balance sheet.

Deferred Charges as shown in the balance sheet

represent costs incurred prior to December 24, 1938, in connection with advertising for the 1939 annual meeting. In our opinion, such items are properly chargeable to future operations.

As far as we could ascertain, provision has been made for all liabilities at December 24, 1938. No provision has been made, however, for any liability that the Society might have in connection with pay roll taxes for the years 1936, 1937 and 1938, as there is a question as to whether or not the Society is liable for such taxes. No pay roll taxes have been paid by the Society nor have any assessments been made by taxing authorities.

Income from the rental of exhibitors' space at the 1939 annual meeting has been deferred, as mentioned heretofore. Collections of 1939 dues and overpayments of dues for prior years have also been shown as unearned income, and, in our opinion, represent income applicable to the ensuing year, except such portion as will be credited to the Medico-Legal Defense Fund, when it is determined what portion, if any, of 1939 dues will be allocated to that fund.

REPORT OF AUDITORS FOR 1938

A separate schedule included herein shows in summary the changes in the Medico-Legal Defense Fund Reserve. In prior years, a certain portion of each member's dues and the interest and dividends on securities allocated to that fund have been credited to the reserve. During the year ended December 24, 1938, this reserve has been credited only with a portion of 1937 dues collected in 1938 and interest and dividends on investments, although it was noted that the budget for the year 1938, approved at the Council meeting on January 13, 1938, provided an appropriation of \$3,500.00 to the Medico-Legal Defense Fund. Due to the fact that receipts credited to this fund during the year amounted to only \$528.65, this reserve was materially reduced. The additional reserve to reduce securities in this fund to their aggregate quoted market prices at December 24, 1938, in the amount of \$648.00 has also been charged to the Medico-Legal Defense Fund Reserve.

Surety bonds on officials and an employee of the Society at December 24, 1938, were as follows: Medical Secretary, \$15,000.00; Treasurer, \$35,000.00; Executive Secretary, \$5,000.00; Bookkeeper, \$5,000.00.

Income and Expense Statement

A statement of income and expense for the fiscal year ended December 24, 1938, is included herein, prepared in comparison with the statement for the preceding year. A comparative statement of expenses for the two years is also included.

The increase in income from membership fees arises from the increase in the amount of the annual dues to \$12.00 and to the fact that no portion of current fees was allocated to the Medico-Legal Defense Fund as mentioned previously. There was also an increase in the membership of the Society during the year.

As in prior years, \$1.50 of each member's annual membership fee has been allocated to subscription income of THE JOURNAL of the Michigan State Medical Society. Net income of the JOURNAL was

slightly more than during the preceding year. We call attention to the fact that income of the JOURNAL is not charged with any part of the expenses of the executive office.

Scope of Examination

The scope and nature of our examination and the extent of our tests of the detail transactions are outlined in the following comments:

The demand deposit and savings deposit were confirmed by correspondence with the depository bank and by reconciliation of the balances reported to the amounts shown herein. The office cash fund was counted on the morning of December 28, 1938, and our count was reconciled to the amount shown herein. Recorded cash receipts for six months of the year under review were traced to deposits shown by the bank statements on file. The recorded cash disbursements for three months of the year were compared with canceled bank checks, invoices and other memoranda. To the extent of the tests made, no irregularities were disclosed.

Notes receivable were inspected by us. Accounts receivable were in agreement with trial balances of the individual accounts. We did not correspond with any of the debtors to confirm the accuracy of the book records. We examined contracts and other data to confirm accounts receivable from exhibitors for space at the 1939 annual meeting. The amount shown as due from the Grand Rapids Trust Company was confirmed by correspondence with that company.

Securities were inspected on December 27, 1938, and market quotations were obtained to ascertain their market prices at December 24, 1938.

We did not correspond with the recorded creditors of the Society to confirm the liabilities at December 24, 1938; however, we examined unpaid invoices, expense reports, etc., received subsequent to that date to ascertain that all liabilities have been provided for. Transactions entering into the ac-

BALANCE SHEET December 24, 1938

Assets			
Cash			
Demand deposit		\$ 4,611.25	
Office cash fund.....		6.20	
Savings deposit		5,033.33	
			\$ 9,650.78
Notes and Accounts Receivable			
Notes receivable for dues—past due.....	\$ 80.00		
Accounts receivable:			
For advertising, reprints and cuts.....	\$1,292.00		
From county societies for dues.....	75.19		
From exhibitors, for space at 1939 annual meeting..	4,158.18	5,525.37	
		\$5,605.37	
Less Reserve		425.00	
		\$ 5,180.37	
Grand Rapids Trust Company.....		93.98	
			5,274.35
Securities			
Stocks and bonds—at cost.....	\$34,611.25		
Less reserve to reduce to aggregate quoted market prices..	6,007.25	\$28,604.00	
Unclipped matured coupons on bonds.....		175.00	
			28,779.00
Deferred Charges			
Expense in connection with 1939 annual meeting.....			117.42
			\$43,821.55
Liabilities			
Accounts Payable			
For current expenses, etc.....			\$ 1,284.04
Liability for Fund Administered			
Couzens Foundation			39.37
Unearned Income			
Sale of exhibitors' space at 1939 annual meeting.....		\$ 5,242.50	
Dues for the year 1939.....		1,428.50	
			6,671.00
Reserve			
For Medico-Legal Defense Fund.....			9,225.30
Net Worth			
Balance at December 25, 1937.....		\$11,764.39	
Net increase for the year ended December 24, 1938.....		14,837.45	
			26,601.84
			\$43,821.55

REPORT OF AUDITORS FOR 1938

INCOME AND EXPENSE STATEMENT FISCAL YEAR ENDED DECEMBER 24, 1938

Income	
Membership fees	\$49,192.00
Less: Allocated to JOURNAL income for sub- scriptions	6,151.12
Allocated to Medico-Legal Defense Fund.....	4.25
	<u>\$ 6,155.37</u>
Net Income from Membership Fees.....	\$43,036.63
Income from JOURNAL—as shown by schedule.....	1,942.98
Interest received	708.33
Miscellaneous income	156.98
	<u>Total Income</u>
	\$45,844.92
Expenses—as shown by schedule	
Administrative and general office.....	\$16,949.26
Society activities	7,655.40
Committee expenses	6,135.57
	<u>\$30,740.23</u>
	\$15,104.69
Other Deductions	
Loss on sale of securities.....	\$ 4,462.21
Adjustment of inventory of "Medical History of Michigan"	834.00
Interest paid	22.45
Bad accounts charged off or provided for.....	.08
Miscellaneous	15.00
	<u>\$ 5,333.74</u>
Net Income	\$ 9,770.95
Add adjustment of reserve to reduce securities of the General Fund to quoted market prices.....	5,066.50
Increase in Net Worth.....	<u>\$14,837.45</u>

INCOME FROM "THE JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY"

Income	
Subscriptions from members.....	\$ 6,151.12
Other subscriptions	112.00
Advertising	10,269.20
Reprint sales	1,857.98
Journal cuts	166.96
	<u>\$18,557.26</u>
Expenses	
Editor's salary	\$ 3,000.00
Editor's expense	600.00
Printing and mailing.....	10,144.90
Cost of reprints.....	1,423.21
Discount and commissions on advertising.....	1,196.17
Postage	250.00
	<u>\$16,614.28</u>
Net Income	<u>\$ 1,942.98</u>

MEDICO-LEGAL DEFENSE FUND RESERVE FISCAL YEAR ENDED DECEMBER 24, 1938

Balance at December 25, 1937.....	\$12,048.60
Disbursements	
Douglas, Barbour, Duesenberg and Purdy—legal services.....	\$1,682.06
Wm. Stapleton, Jr.—salary.....	999.96
Miscellaneous	21.93
	<u>\$2,703.95</u>
Receipts	
Interest received on securities.....	\$ 524.40
Apportionment of 1937 membership fees collected in 1938.....	4.25
	<u>528.65</u>
	2,175.30
	<u>\$ 9,873.30</u>
Increase in reserve to reduce securities to aggregate quoted market prices..	648.00
Balance at December 24, 1938.....	<u>\$ 9,225.30</u>

counts of the Medico-Legal Defense Fund for the year were reviewed by us.

In addition to our examination of the items included in the balance sheet as outlined above, we made tests of transactions entering into the income and expense accounts. Unused membership certificates were examined to confirm the income from dues. Interest received was checked by inspection of unclipped coupons on bonds. Tests of advertising income were made by comparison of billings for advertising with space used in three issues of the JOURNAL. We also reviewed the items charged to the major expense accounts for the year.

EXPENSES

Administrative and General	
Secretary's salary	\$ 2,400.00
Executive secretary's salary.....	6,000.00
Other office salaries.....	4,000.05
Office rent	720.00
Printing, stationery and supplies.....	989.91
Postage	738.02
Auditing	250.00
Insurance and fidelity bonds.....	190.77
Telephone and telegraph.....	460.55
Legal expense	35.00
New equipment	994.78
Unclassified	170.18
	<u>\$16,949.26</u>
Society Activities	
Council expenses	\$ 3,012.50
Education expenses .....	.....
Delegates to American Medical Association...	1,675.56
Secretaries' conference	740.61
Secretary's letters	523.28
Traveling expense	2,218.63
Legal expense .....	.....
Reporting annual meeting.....	130.39
Organizational expense .....	.....
Publications	18.90
Honorarium .....	.....
American Medical Association survey.....	29.38
Sundry society expense.....	820.59
	<u>\$ 9,169.84</u>
Less revenue from annual meeting in excess of cost thereof	1,514.44
	<u>\$ 7,655.40</u>
Committee Expenses	
Legislation committee	\$ 775.29
Committee on distribution of medical care.....	676.12
Contribution to Joint Committee on Public Health Education	875.00
Cancer committee	802.95
Preventive medicine committee.....	119.51
Postgraduate conferences	1,328.80
Public relations committee.....	509.10
Ethics committee	42.72
Economics committee .....	.....
Maternal welfare committee.....	150.10
Iodized salt committee.....	286.25
Advisory committee on women's auxiliary.....	110.74
Sundry other committees.....	458.99
	<u>\$ 6,135.57</u>
Total	<u>\$30,740.23</u>

Opinion

In our opinion, based upon our examination, the accompanying balance sheet and related statements of income and expense fairly present the position of the Society at December 24, 1938, and the results of its operations for the year ended at that date. Further, it is our opinion that the statements have been prepared in accordance with accepted principles of accounting and on a basis consistent with the preceding year.

ERNST & ERNST,
Certified Public Accountants

WOMAN'S AUXILIARY

President—Mrs. P. R. Urmston, 1862 McKinley Avenue, Bay City, Michigan
Sec.-Treas.—Mrs. R. E. Scrafford, 2210 McKinley Ave., Bay City, Michigan
Press—Mrs. J. W. Page, 119 N. Wisner Street, Jackson, Michigan

PUBLIC RELATIONS

This year the Public Relations Committee of the Woman's Auxiliary faces two major questions—group hospitalization and socialized medicine, both of which have occupied the attention of the State Medical Society for several months.



(Photo by Coulter Studio, Grand Rapids, Mich.)

ANNA S. COLLISI

Although the State Society as yet has not requested the assistance of the auxiliary it would be well to be thoroughly cognizant of the action of the House of Delegates, and to become properly informed on the subject of group hospitalization. When and if plans are adopted, auxiliary members would be prepared to discuss this most vital question in women's clubs and organizations whenever appropriate occasions arise.

Socialized medicine has been publicized so long that every auxiliary member has some knowledge of it. The question is so vital to the medical profession that auxiliary members should thoroughly understand it and be prepared to discuss it in every way, particularly its effect upon the confidential relationship of physician and patient.

Both group hospitalization and socialized medicine will require enabling legislation before they can be made effective.

Obviously, the important factors by which can be disseminated are medical speakers at lay meetings and press articles by lay writers. The facts must come from authentic medical sources—the Public Relations Committees of the State Society and the Woman's Auxiliary.

May I urge each County Public Relations Committee and individual auxiliary member to begin at once a most thorough study of these two questions; that they contact as many lay groups as

possible; and that they become civic-conscious to the extent that it will react favorably in gaining public support and confidence.

Respectfully submitted,
ANNA S. COLLISI, *Chairman,*
Public Relations Committee.

Jackson County

Tuesday evening, January 17, the Women's Auxiliary held a dinner meeting at the Hotel Hayes.

The group was greatly honored by the presence of Dr. Morris Fishbein, who talked for a few minutes before going into the Medical Society's meeting, where he spent the remainder of the evening. Dr. Fishbein spoke briefly of the legislative problems confronting the medical field. He said compulsory health insurance holds two major threats. First, it would deteriorate the general quality of medical service. Second, it would represent a definite step in the direction of totalitarianism, a system in which the worker might conceivably be paying a substantial portion of his wages to the government for service which, under our Democratic system, he should be paying for directly himself, but which the government would be providing for him.

Dr. Fishbein spoke favorably of the voluntary non-profit cash indemnifying program of group medical and hospital insurance which, earlier this month, was approved by the house of delegates of the Michigan State Medical Society.

Following Dr. Fishbein's talk, Mr. Bullen introduced Rev. Carl Winters, who gave a review of the current New York plays. He commented briefly on "Pins and Needles," "Sing Out the News," "Abe Lincoln In Illinois," "Hell's Apoppin'," and spoke more at length on "Knickerbocker Holiday."

Co-chairmen of arrangements for the evening were Mrs. Hanna and Mrs. McGarvey.

ANNA HYDE SHAEFFER,
Press Chairman.

Kent County

January proved to be an interesting month for auxiliary members. The Persian Coffee, given under the auspices of the Hygeia and Philanthropic committees, was not only a financial success but very enjoyable. Mrs. Carl F. Snapp, our hostess, who opened her home for the affair, was assisted by our President, Mrs. William J. Butler. Co-chairmen were Mrs. Wallace H. Steffensen and Mrs. Joseph C. Tiffany, and very special compliments, indeed, go to Mrs. David B. Davis, whose delightful piano selections added so much charm and atmosphere. However, not the least of the credit is enthusiastically given to Mrs. Robert M. Eaton, whose tales of the charms of Persia inspired the whole affair and who, with her two children, exhibited authentic Persian costumes and curios.

At our regular meeting we enjoyed an enlightening talk given by Mr. Charles Orin Ransford, President of Herpolsheimer's department store, who chose as his topic "Economic Measles." Mr. Ransford is quite an authority on the subject, having conducted a survey of retail business in the United States, and

(Continued on page 252)

IODOBISMITOL *with Saligenin*

... for the patient with early syphilis

... for the patient who is sensitive to arsenic



IODOBISMITOL WITH SALIGENIN
Administer intramuscularly, preferably into the upper outer quadrant of the gluteus maximus muscle. One ampul (.2 cc. size) provides an average therapeutic dose. Injections should be made every three days. Give at least 8 to 12 consecutive doses in a course. Best results are usually obtained by the continued administration over long periods of time without rest intervals. Iodobismitol with Saligenin treatment need not be interrupted when arsenphenamines are being given.
Care should be taken that there is no leakage back into the subcutaneous tissue as collections of Iodobismitol with Saligenin beneath the skin will cause lump formation. To avoid trackage of the solution back along the needle, after filling the syringe, draw about 1/2 cc. of air into it and when inserting clear the needle of Iodobismitol with Saligenin with this air at the end of the stroke.

A RECENTLY PUBLISHED clinical study¹ of combination bismuth therapy includes the comment that: "One of the problems of bismuth therapy for syphilis is to achieve a rapid rise of the metal in the blood stream to a therapeutic level and to keep it there without too great hardship on the patient. . . . This we believe we have achieved by the combined use of iodobismitol or sobisminol and weekly injections of bismuth subsalicylate. . . . Such a form of bismuth therapy would be particularly useful in the acute stage of syphilis when the patient is sensitive to arsenic and it is necessary to rely on other antisypilitic measures. Moreover, for the patient

with early syphilis, who is just starting therapy, this schema might be employed in the first course of bismuth therapy when the clinician is desirous of dealing a heavy blow to the spirochetes from another angle than that of arsenic."

Iodobismitol with Saligenin is a propylene glycol solution containing 6% sodium iodobismuthite, 12% sodium iodide, and 4% saligenin (a local anesthetic).

It is rapidly absorbed and slowly excreted and is useful in both early and late syphilis. It presents bismuth largely in anionic (electro-negative) form.

¹Jl. A. M. A. 111:2175 (Dec. 10), 1938.

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Neoarsphenamine Squibb, Arsphenamine Squibb, and Sulpharsphenamine Squibb are prepared to produce maximum therapeutic benefit. They are subjected to exacting controls to assure a high margin of safety, uniform strength, ready solubility, and high spirocheticidal activity.

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claimed that the method of attacking our problems has been wrong, because we have taken the short range viewpoint and treated each new problem as a crisis instead of assigning it to its proper place in the general scheme of things.

Plans are already being made for spring, including arrangements for our annual open tea in April, which will feature an exhibit of members' hobbies.

JANE R. FRANTZ,
Press Chairman.

Kalamazoo County

On January 17, thirty-five members of the Woman's Auxiliary to the Academy of Medicine met at the home of Mrs. Ralph Fast for a coöperative dinner and a business meeting.

The President announced that the Auxiliary had been asked to send a representative to the Child Welfare Board.

Mrs. F. T. Andrews explained the indictment of the physicians in Washington, also the threat of the government to assess the American Medical Association.

Five ladies were welcomed as new members to the Auxiliary.

Following the business meeting, bridge and sewing were enjoyed.

(MRS. HUGO) BARBARA K. AACH,
Publicity Chairman.

Saginaw County

Forty-five members of the Saginaw County Medical Auxiliary met at the home of Mrs. F. J. Cady Tuesday evening, January 17. A business and social hour were enjoyed. House prizes were received by Mrs. Louis D. Gomom and Mrs. Donald V. Sargent. Refreshments were served by the hostess with the social committee, consisting of Mrs. Henry J. Meyer, chairman; Mrs. Wm. P. Martzawka and Mrs. J. A. Maurer, assisting.

MRS. MILTON G. BUTLER,
Publicity Chairman.

A Perverted Era

Many people are inclined to lay too much stress on the achievements of our time. We admit the progress in science and industry, but we deplore the decline in ethics and social relationship. The Ten Commandments are not observed as they should be.

Of course, everybody knows now that two main factors are at work. One is overpopulation, and the other the lack of adjustment of human relations to mechanics. The perversion which is shown by utilizing technical progress for mass destruction is perhaps the most discouraging symptom of modern times. It is true that every nation has a large number of intelligent people. They are, however, more or less powerless at present. The psychologist James saw that the whole world is actuated by "interest and emotion," as Schiller saw by "hunger and by love." People must eat. If there are too many people, they want their neighbors' food, and there is war. Why do people not use common sense?

A great change must come in the education of the masses, so that a more secure foundation is laid for a well regulated population. There are great modern problems to be solved. War will not help the situation. An enlightened humanity, in order to get order in the world, must start again on the right track which begins with the Ten Commandments.—DR. EMIL AMBERG, in *The Rainbow*.

MICHIGAN'S DEPARTMENT OF HEALTH

DON W. GUDAKUNST, M.D., Commissioner
LANSING, MICHIGAN

COMMUNICABLE DISEASE REGU- LATIONS REVISED

Rules and regulations of the Michigan Department of Health for the control of communicable diseases were considered by the State Council of Health meeting in advisory session with the state health commissioner at Lansing, January 11. The Council approved the following changes and additions to the regulations which become effective immediately:

1. All bites of humans by any dog are reportable to the health officer and to the Michigan Department of Health in the same manner as communicable disease and suspected communicable disease cases are reported.
2. All cases and types of pneumonia are designated to be reportable diseases. Pneumonia is to be reported as either bronchial or lobar pneumonia, and the type of organism causing the disease shall be reported whenever the sputum examination has revealed the type.
3. Blastomycosis is declared to be a reportable disease.
4. All diarrheas accompanied by a bloody discharge from the bowel shall be reportable and shall be reported as dysentery. All dysenteries shall be reported by type of causative organisms, when such has been determined.
5. Diarrheas of the newborn (infants under one month of age) occurring in babies in hospitals licensed or operating as maternity hospitals are declared to be reportable conditions. The circumstances surrounding the development of such disease must be investigated by the local or State Department of Health.
6. Paratyphoid fever shall be reported by type and sub-classification.
7. Influenza is declared to be a reportable disease at all times and not solely during epidemics.
8. Streptococcus sore throat is declared to be a reportable disease at all times and not solely during epidemics.
9. The disease favus is declared to be no longer a reportable disease.
10. The disease mumps is declared to be no longer a reportable disease.
11. Patients with rubella (German measles) need not be isolated nor contacts quarantined. However, children with the disease must be excluded from school and other public gatherings during the course of the disease.
12. Adult contacts, familial and extra-familial, to scarlet fever need not be quarantined unless the occupation of such contacts has to do with caring for children and the handling of food in any form.
13. The quarantine period for contacts to cases of poliomyelitis shall be reduced from fourteen days to seven days.
14. For the purpose of these regulations the term "isolation" shall be used to refer to the restrictions placed upon persons ill with, or suspected of having, a communicable disease. The term "quarantine" shall apply to the restrictions placed upon the use, movement or activities of all things or persons known to have been contaminated or exposed to a case or suspected case of communicable disease.

(Continued on page 254)

In

Post-Encephalitic Parkinsonism

'Benedrine Sulfate Tablets'* are valuable in the treatment of the post-encephalitic parkinsonian syndrome. The investigators listed below report marked symptomatic relief in a majority of patients and a strikingly high percentage of subjective improvement.

'Benedrine Sulfate Tablets', used alone or in conjunction with hyoscine, atropine or stramonium, eliminated or alleviated such symptoms as lowered energy and mood, tremor, insomnia, drowsiness and oculogyric crises.

SOLOMON, P.; MITCHELL, R. S. AND PRINZMETAL, M.: The Use of Benedrine Sulfate in Postencephalitic Parkinson's Disease—*J. A. M. A.*, 108:1765, May 22, 1937.

FINKELMAN, I. AND SHAPIRO, L. B.: Benedrine Sulfate and Atropine in Treatment of Chronic Encephalitis—*J. A. M. A.*, 109:344, July 31, 1937.

DAVIS, P. L. AND STEWART, W. B.: The Use of Benedrine Sulfate in Postencephalitic Parkinsonism, *J. A. M. A.*, 110:1890, June 4, 1938.

MATTHEWS, ROBERT A.: Symptomatic Treatment of Chronic Encephalitis with Benedrine Sulphate—*Am. J. Med. Sci.*, 195:448, April, 1938.



BENZEDRINE SULFATE TABLETS

*Each 'Benedrine Sulfate Tablet' contains amphetamine sulfate, 10 mg. (approximately $\frac{1}{8}$ gr.). The Council on Pharmacy and Chemistry of the A. M. A. has adopted amphetamine as the descriptive name for α -methylphenethylamine, the substance formerly known as benzyl methyl carbinamine. 'Benedrine' is S.K.F.'s trademark for their brand of amphetamine.

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ESTABLISHED 1841

It is the patient that is controlled by isolation and the contacts by quarantine.

15. All cases of communicable disease having any animal reservoir or which are transmissible from animal to man, or man to animal, which come to the attention of the health officer shall, by resolution of the State Council of Health, be reported by that health officer to the Department of Agriculture. It shall be the duty of the full time local health officer to render such reports to the local representative of the State Department of Agriculture. It shall be the duty of the state commissioner of health to notify the state commissioner of agriculture of all such cases coming to his attention, together with such information as he has concerning the case.

The above changes will be incorporated in the revised Rules and Regulations for the Control of Communicable Diseases which will be published in March, 1939, by the Michigan Department of Health and made available to health officers and other physicians.

TUBERCULOSIS REGULATIONS

The State Council of Health of the Michigan Department of Health at a meeting in Lansing, January 11, put into effect a new set of regulations governing hospitalization of public charge cases of tuberculosis.

Amendments to the tuberculosis laws passed by the 1937 legislature provided for participation by the state in the care and treatment of public charge patients to the extent of one dollar and fifty cents per day for each such patient. This subsidy is paid to the county of legal settlement of the patient on condition that such county assumes the balance per diem cost and that the hospital or sanatorium is approved by the state commissioner of health. All vouchers submitted for payment of the subsidy must be approved by the state commissioner of health.

In effect, the law imposes very important responsibilities on the health commissioner for judicious expenditure of nearly two million dollars annually from state funds. The new regulations were designed to afford assurance that adequate facilities for modern treatment shall be provided by the approved tuberculosis institutions, that adequate reports shall be received by the Department of Health and that expenditures of appropriations shall be conserved for the treatment of bona fide cases of active reinfection disease.

Three of the regulations are of special interest to all physicians who refer tuberculosis cases to approved hospitals and sanatoria for treatment at public expense. These are quoted below with brief comments on their significance to the practicing physician.

1. "An official application signed by the patient, a physician and the health officer of the jurisdiction in which the patient resides, must be on file in the records of the hospital or sanatorium at the time of admittance."

2. "No public charge patient shall be assigned to a bed in the hospital or sanatorium without a provisional diagnosis of active tuberculous disease having been established prior to admittance. This provisional diagnosis shall be based on information supplied to the medical director of the institution from the referring physician, out-patient department, clinic or health department. Confirmation of clinical findings in the form of laboratory and x-ray reports shall be supplied by the referring agency, except in emergencies."

In order to accomplish prompt hospitalization for his patient the physician should supply the health

officer with a summary of the history and clinical findings, copies of laboratory reports and x-ray films to be forwarded to the hospital or sanatorium with the application.

3. "No case of primary pulmonary tuberculosis shall be admitted to the hospital or sanatorium as a public charge case, unless pneumonic type parenchymal infiltration or evidence of pleural inflammation is visible on an x-ray film of the chest; which film shall have been made within thirty days prior to filing of the application for admittance. Infants under 18 months of age and young adults of the negro race showing x-ray and clinical evidence of massive active tracheobronchial tuberculous lymphadenopathy may be admitted when clinical condition warrants."

MORTALITY AND NATALITY IN 1938

Provisional vital statistics for 1938 released by the Bureau of Records and Statistics confirm earlier predictions that new health records would be established during the past year.

The state birth rate of 18.70 is the highest since 1930. A total of 95,385 births was reported in 1938, compared with 91,566 the previous year when the rate was 17.98.

The general death rate of 9.90 equals the 1934 rate. With the exception of 1932 and 1933 this rate is the lowest in history. There were 50,470 deaths reported last year, compared with 53,468 reported in 1937.

Infant mortality continued its gradual decline in 1938, reaching the new low rate of 45.14 deaths per 1,000 live births. The lowest previous rate occurred in 1935 when it was 47.77. Last year 4,306 infants died before completing the first year of life, while 4,374 similar deaths were reported in 1937.

Maternal mortality in 1938 again equaled the all-time low rate established in 1937. The rate was 3.56 deaths per 1,000 live births and the total number of maternal deaths was 340.

Ten major causes of death accounted for 35,978 or 71 per cent of the total mortality in 1938. Heart disease, cancer and apoplexy continued to head the list in the order named. Each of these showed an increase over 1937 mortality reports. Deaths from heart disease increased from 9,726 in 1937 to 10,025 in 1938 to set the highest toll ever attributed to this cause in Michigan. Cancer deaths increased from 5,528 to 5,755 last year. Deaths from apoplexy increased from 4,195 in 1937 to 4,362 in 1938.

Coronary disease and angina pectoris moved into fourth position among the major causes of death to replace pneumonia. There were 3,338 deaths attributed to coronary disease and angina last year compared with 3,045 deaths in 1937. Pneumonia deaths declined from 4,098 in 1937 to 2,845 last year.

Nephritis continued in sixth place as a cause of death, but deaths attributed to this cause declined from 2,931 in 1937 to 2,755 last year. Another decline was also reported in deaths due to accidents other than those caused by automobiles. All forms of accidental deaths exclusive of automobile totaled 2,112 in 1938 compared with 2,405 the previous year.

Deaths caused by automobile accidents dropped off sharply in 1938, this cause dropping to tenth place among the major causes of death. A total of 1,444 automobile deaths were reported last year compared to the all-time high total of 2,175 such deaths in 1937. Tuberculosis moved up into eighth place in the list as the cause of 1,862 deaths. This figure was a decline, however, from the 2,119 deaths attributed to this cause in 1937. Deaths attributed to premature birth totaled 1,480 last year compared with 1,415 infant deaths from this cause in 1937.

(Continued on Page 256)



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are adjusted by experienced fitters who know how to fit each type of case, and they see to it that patients get the maximum assistance from every garment.

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DR. CAMPBELL APPOINTED CONSULTANT ON MATERNAL HEALTH

Dr. Alexander M. Campbell of Grand Rapids has been appointed as consultant on maternal health to the Bureau of Maternal and Child Health. Dr. Campbell, nationally known authority on obstetrics and gynecology, is chairman of the Maternal Health Committee of the Michigan State Medical Society. He has given up his private practice to devote his full time to his new position.

Dr. Campbell will work intensively with the 54 maternal health committees of the county medical societies, stimulating their interest in maternal mortality and morbidity in their respective areas, including actual case studies. He will promote continuous maternal health programs carried on under the direction of the local societies. In addition to his activities among the medical profession, Dr. Campbell will also carry on a general maternal health educational program among lay groups and agencies concerned with the provision of adequate maternal care.

This program has been made possible through the coöperation of the State Medical Society, the W. K. Kellogg Foundation, the University of Michigan, and the State Department of Health. This new service, while statewide in scope, will be centered in selected areas for a period of intensive activity before being transferred to another district.

Dr. Campbell is a graduate of Wayne University College of Medicine. In addition to his membership in the State Medical Society, he is a fellow of the American Medical Association and is a member of the American Association of Obstetricians, Gynecologists and Abdominal Surgeons, the American Gynecological Society, the American College of Surgeons, and the Detroit Obstetrical and Gynecological Society. He has also been appointed special lecturer on maternal welfare in the Department of Postgraduate Education, University of Michigan, and consultant on obstetrics for the U. S. Public Health Service.

PNEUMONIA BULLETIN FOR PHYSICIANS

A bulletin for physicians on the serum treatment of pneumonia has been published by the Michigan Department of Health. The bulletin describes the use of antipneumococcic serum, the collection and typing of sputum, indications and contra-indications for serum therapy, and the mode of administration of serum. Serum distributing stations and laboratories for pneumococcus type determinations are also listed in the bulletin. Physicians who have not already received a copy, may do so upon request to the Michigan Department of Health at Lansing.

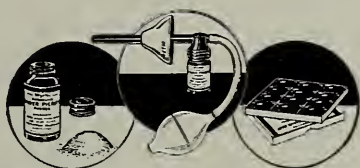
During the past year the Michigan Department of Health has carried on an intensive program to aid physicians in reducing pneumonia mortality. This program has included the production of low cost, potent sera for the treatment of Types 1 and 2 pneumonia, the establishment of distribution centers throughout the state where this serum may be obtained free, the organization of laboratory service for the rapid typing of pneumonia cases, and the education of the public to seek necessary early medical care.

Serum for the treatment of Types 1 and 2 pneumonia is now being distributed from 77 supply centers in Michigan. There are 137 public and private laboratories throughout the state which have been certified for pneumococcus typing. There have been 986 doses of Type 1 serum and 775 of Type 2 serum made available to physicians since the intensive program was started.

AN EFFECTIVE TREATMENT FOR TRICHOMONAS VAGINITIS

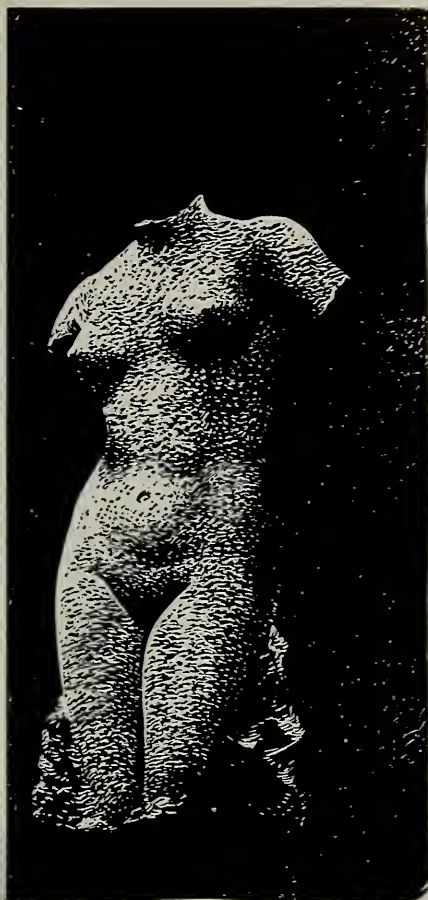
An effective treatment by Dry Powder Insufflation to be supplemented by a home treatment (Suppositories) to provide continuous action between office visits. Two Insufflations, a week apart, with 12 suppositories satisfactorily clear up the large majority of cases.

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Through the coöperation of the U. S. Public Health Service and the Metropolitan Life Insurance Company, the Department is also sponsoring the showing in Michigan motion picture theaters of "A New Day," an educational trailer on the modern treatment of pneumonia. The showing of this picture may be arranged upon application to the Michigan Department of Health.

BRANCH LABORATORY ESTABLISHED AT POWERS

A new branch laboratory of the Michigan Department of Health has been established in the Pinecrest Sanatorium at Powers. This new Upper Peninsula laboratory was opened January 18. It is located at this railroad communication center of Menominee County where it will be possible to provide more rapid diagnostic service in the control of communicable diseases to the physicians and health officers in the southern and eastern areas.

A regional conference of the staffs of the nine county and district health departments of the Upper Peninsula was held with the state health commissioner and other state health officials to inaugurate the new laboratory service and to coördinate the department policies. County medical societies of Dickinson, Delta and Menominee Counties also met with the commissioner at the new laboratory.

Dr. C. C. Young, director of the Bureau of Laboratories, has assigned Dr. George D. Cummings, assistant director of the Central Diagnostic Laboratories at Lansing, to organize the new laboratory service at Powers. In addition to the new branch laboratory, the Department also maintains a branch at Houghton and the Western Michigan Division Laboratory at Grand Rapids as well as the Central Laboratories at Lansing.

MARCH, 1939

DR. ALBERT McCOWN APPOINTED DEPUTY COMMISSIONER

Albert McCown, M.D., former director of the maternal and child health division of the Federal Children's Bureau, has been appointed deputy commissioner of the Michigan Department of Health, effective February 1, according to an announcement made by Dr. Don W. Gudakunst, commissioner. Dr. McCown, in addition to his other administrative duties, will be in charge of local health services.

MAY DAY—CHILD HEALTH DAY, 1939

Health organizations throughout the state are planning to celebrate Monday, May 1, as May Day—Child Health Day, 1939 with appropriate activities emphasizing the child's health, development and well-being throughout life.

Miss Marjorie Delavan, director of the Bureau of Education of the Michigan Department of Health, has been appointed May Day chairman and is co-operating with local groups who are planning special programs.

PERSONNEL

Dr. Filip C. Forsbeck, director of the Bureau of Epidemiology, has resigned to accept a position with the United States Public Health Service, effective March 1. In his new position Dr. Forsbeck will make a study of dysentery in the Ohio River Valley. His headquarters will be at Cincinnati. Dr. A. W. Newitt, who has been chief of the Division of Tuberculosis, has been appointed acting director

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MEDICINE—Two Weeks' Course, June 5th and October 9th. Two Weeks' Gastroenterology June 19th and September 25th. Personal Courses every week.

SURGERY—General Courses One, Two, Three and Six Months; Two Weeks' Intensive Course in Surgical Technique with practice on living tissue; Clinical Courses; Special Courses. Courses start every Monday.

GYNECOLOGY—Two Weeks' Course, June 5th and October 9th. Personal Course Vaginal Approach to Pelvic Surgery, April 10th and November 6th. Two Weeks' Personal Course, June 19th.

OBSTETRICS—Two Weeks' Intensive Course, October 23rd. Informal Course starting every week.

FRACTURES & TRAUMATIC SURGERY—Ten-Day Formal Course, April 10th, June 19th, and September 25th. Informal Course every week.

OTOLARYNGOLOGY—Two Weeks' Intensive Course starting April 10th. Informal Course every week.

OPHTHALMOLOGY—Two Weeks' Intensive Course starting April 24th. Informal Course every week.

CYSTOSCOPY—Ten-Day Practical Course rotary every two weeks.

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AND THE SPECIALTIES EVERY WEEK**

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of the Bureau of Epidemiology to succeed Dr. Forsbeck.

Dr. T. M. Koppa, former director of the Bureau of Communicable Diseases of Wyoming, has been appointed to the staff of the Bureau of Epidemiology.

Dr. Berneta Block, field physician for the Bureau of Maternal and Child Health, has been transferred to the Bureau of Epidemiology to take charge of the typhoid fever control program.

Dr. Norman DeNosauquo, who has been attached to the Bureau of Epidemiology, has been assigned to Midland County, where he will serve as director of the County Health Department during the absence of Dr. Edwin H. Place. Dr. Place is on leave of absence to the University of Michigan, where he is continuing his public health training.

William Carey, formerly of the Detroit Department of Health, has been appointed to the staff of the Michigan Department of Health as sanitarian in charge of resort and camp sanitation.

Stuart T. Friant, formerly assistant to the late Dr. W. J. V. Deacon, director of the Bureau of Records and Statistics, has been appointed the new director of that bureau.

Harmon J. Chamberlain has been appointed to the staff of the Bureau of Education, where he will be in charge of the Department's library service.

IN MEMORIAM

Dr. Stephen H. Knight

Dr. Stephen H. Knight died at his home in Detroit on February 9, at the age of seventy-six years. He was president of the staff of Grace Hospital and had been connected with the hospital since 1888 when he came to Detroit to be the first surgical house officer of the hospital.

Dr. Knight was a member of an old Yankee family, his ancestors dating back to 1635 in American history. Members of his family have fought in every colonial and American war. Dr. Knight served during the World War as chairman of the war-time Medical Advisory Board of Michigan and his two sons, Hale G. and Rufus H. Knight, served in the United States Navy. Born in Salem, Massachusetts in 1862, Dr. Knight was graduated from the Salem grammar and high schools and in 1883 from Harvard. In 1886 he received his medical degree from the New York Homeopathic Medical College. He was a founder of the American College of Surgeons, a fellow of the American Medical Association and the American Institute of Homeopathy, as well as the state and local medical societies. He was a past president of the Detroit and Michigan Societies of the Sons of the American Revolution; governor of the Michigan Society of Sons of Colonial Wars; and also held membership in the Masonic Order, the Detroit Athletic Club, the University Club and the Grosse Ile Golf and Country Club.

Mrs. Knight, who was Elizabeth Gifford of Salem, died a year ago. Surviving Dr. Knight are his two sons and several grandchildren.

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General News And Announcements

100 Per Cent Club for 1939

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Luce County Medical Society
Manistee County Medical Society
Menominee County Medical Society
Muskegon County Medical Society
Ontonagon County Medical Society
Tuscola County Medical Society

Other County Medical Societies are near the 100 per cent mark—being out of the honorary club by just one or two members not having paid 1939 dues. Help your society to be in the 100 per cent Club.

The Michigan State Medical Society extends its deepest sympathy to Senator and Mrs. D. Hale Brake of Stanton in the recent loss of their son.

* * *

The Bay County Medical Society at its meeting of January 25, 1939, made the suggestion that each member subscribe to "America's Future" and place it on their waiting room table.

* * *

Write for a free supply of the booklet "On the Witness Stand," a small booklet which gives all the answers to the puzzling questions of socialized

medicine, group hospitalization, coöperatives, etc. Distribute them to your patients and friends. Send your requests to 2020 Olds Tower, Lansing.

* * *

The Placement Service of the Michigan State Medical Society would appreciate being advised of any locations where a physician is needed—where the doctor has deceased or moved, or where the community is depending upon a physician in a distant town. Several capable young physicians are looking for these places.

* * *

A special meeting of the Kalamazoo Academy of Medicine was held on February 16 to discuss the "Federal Health Program." Secretary L. Fernald Foster of Bay City and Executive Secretary Wm. J. Burns were invited guests. Members of the dental, pharmaceutical and allied professions were also present.

* * *

Councilor Vernor M. Moore, Grand Rapids, and The Kent County Medical Society held a special District Meeting on February 8, to which all members of the Fifth Councilor District were invited. Doctor B. R. Corbus of Grand Rapids, President-Elect of the Michigan State Medical Society, was presented; he addressed the physicians on "Our Guild."

* * *

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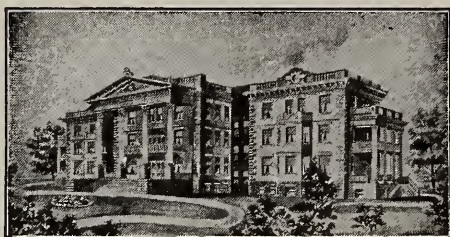
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gress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof; or abridging the freedom of speech, or of the press; or the right of the people peaceably to assemble, and to petition the government for a redress of grievances."

* * *

Michigan physicians contributed articles to *The Journal of the American Medical Association* recently as follows: "Thymic Hyperplasia" by Clyde K. Hasley, M.D., of Detroit, appeared in the issue of January 28, 1939; and "Relief of Pain in the Bladder" by C. F. Schroeder, M.D., and Robert E. Cumming, M.D., of Detroit, appeared in the issue of February 4, 1939.

* * *

The Upper Peninsula Secretaries' Conference will be held at the Northland Hotel, Marquette, on Sunday, March 26, 11:00 A. M. to 3:00 P. M. Three informative addresses will be given. Secretary L. Fernald Foster, Bay City, and Executive Secretary Wm. J. Burns, Lansing, will be present.

All members of the M.S.M.S. who reside in the Upper Peninsula are cordially invited to attend this interesting conference.

* * *

The Henry Ford Hospital is planning a series of clinics and lectures to be held April 14 and 15. The occasion is a reunion of former and present staff members, and the program will be given largely by ex-members of the staff. Among those who are on the program are Dr. Russell L. Haden, Chief of the Medical Department of the Cleveland Clinic, and Dr. Everett T. Plass, Professor of Obstetrics at the University of Iowa.

* * *

Speakers on any medical or medico-economic subject are available through the Executive Office, for professional and lay groups. When you desire a speaker, write 2020 Olds Tower, Lansing, specifying the subject you wish discussed, the type of audience, and other pertinent details. Every effort will be made to obtain an outstanding lecturer in the field you choose. Allow ample time (at least two weeks) for the speaker to make arrangements to attend your meeting.

* * *

The Michigan Association of Industrial Physicians and Surgeons will hold its annual meeting in Lansing, Hotel Olds, on April 19, 1939. Earl I. Carr, M.D., of Lansing is President; Don F. Kudner, M.D., Jackson, Secretary; Frank McCormick, M.D., Detroit, Vice President. The Board is composed of the above plus J. Duane Miller, M.D., of Grand Rapids and A. H. Whittaker, M.D., of Detroit. The program of the annual meeting will be published in the April JOURNAL.

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Enabling legislation to permit the legal offering of voluntary non-profit group medical care and group hospitalization is now being considered by the Michigan Legislature. Indications are that the Legislature will favor such a law and will act promptly. Write your Representative(s) and Senator(s) requesting a copy of H.B. 145, the group hospitalization Bill, and H.B. 215, the group medical care bill. Your legislator will be pleased to hear from you.

* * *

Afflicted Child Commitments for month of January, 1939—Total cases, 2,071, of which 265 went to University Hospital and 1,806 went to miscellaneous hospitals. From the above, Wayne County sent 37 to University Hospital and 378 to miscellaneous hospitals, for a total of 415 cases.

Crippled Child Commitments: total cases, 251, of which 69 went to University Hospital, and 182 to miscellaneous hospitals. From the above, Wayne County sent 4 to University Hospital and 47 to miscellaneous hospitals, for a total of 51.

* * *

Ten more of your friends who displayed their products and services at the 1938 Detroit Convention last September. When you have an order, don't forget your friends!

Nestle's Milk Products Company, New York City
Parke, Davis & Company, Detroit, Michigan
Pelton & Crane Company, Detroit, Michigan
Pet Milk Company, St. Louis, Missouri
Petrolagar Laboratories, Inc., Chicago, Illinois
Philip Morris & Co., Ltd., New York City
Physicians Equipment Exchange, Detroit, Michigan
Picker X-Ray Corporation, Detroit, Michigan
Pocahontas Fuel Company, Detroit, Michigan
Professional Management, Battle Creek, Michigan.

* * *

Grand Rapids will be host to the Michigan State Medical Society next September when physicians

from all parts of Michigan will visit the Furniture Capital of America for the 74th Annual Convention. The 1939 Convention will be a four-day meeting, with thirty-eight prominent out-of-Michigan lecturers scheduled to bring you the latest advances in all branches of the practice of medicine. Plan now to attend this outstanding medical convention September 19, 20, 21, 22, 1939. Secure your hotel accommodations early.

* * *

Radio programs were sponsored by the Michigan State Medical Society Radio Committee during the past few weeks as follows:

January 16, 1939—"Dentistry's Part in Public Health," by K. R. Gibson, D.D.S.
January 23, 1939—"The Michigan Group Hospital and Medical Care Plan," by R. Lee Laird, M.D.
January 30, 1939—"Indigestion or Stomach Trouble," by Claire F. Vale, M.D.
February 6, 1939—"Discussion of Recent Dental Lectures and Examinations in Detroit Schools, and Facts about Dentistry for Children," by C. Wilfred Wilson, D.D.S.
February 13, 1939—"The Parole Clinic At Eloise Hospital," by Martin H. Hoffmann, M.D.
February 20, 1939—"Medicine and History," by Charles E. Dutches, M.D.
February 27, 1939—"The Story of Diabetes," by George Thostesen, M.D.
March 6, 1939—"Marvels of Modern Surgery," by Roy McClure, M.D.
March 27, 1939—"Low Back Pain," by Frederick C. Kidner, M.D.

* * *

The 1939 A.M.A. Convention will be held in St. Louis, Missouri, on May 15 to 19. Many Michigan physicians will plan to attend the A.M.A. Sessions in St. Louis, as it is comparatively close. If you do plan to attend, write for hotel reservations immediately, or you may be disappointed.

The American Medical Golfing Association will hold its Twenty-fifth Annual Tournament at beauti-

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American Board of Obstetrics and Gynecology

The general oral, clinical and pathological examinations for all candidates, Part II Examinations (Groups A and B), will be conducted by the entire Board, meeting in St. Louis, Missouri, on May 15 and 16, 1939, immediately prior to the annual meeting of the American Medical Association. Notice of time and place of these examinations will be forwarded to all candidates well in advance of the examination dates. Candidates for re-examination in Part II must request such re-examination by writing the Secretary's Office before April 1, 1939. Candidates who are required to take re-examinations must do so before the expiration of three years from the date of their first examination. Application for admission to Group A, May, 1939, examinations must be on file in the Secretary's Office by March 15, 1939.

Application blanks and booklets of information may be obtained from Dr. Paul Titus, Secretary, 1015 Highland Building, Pittsburgh, (6) Pennsylvania.

American College of Surgeons

A sectional meeting of the American College of Surgeons will be held in Indianapolis with headquarters at the Claypool Hotel on March 22, 23 and 24. The following six states will participate: Indiana, Illinois, Michigan, Ohio, Wisconsin, and Iowa. An exceptionally interesting convention is anticipated. The program is varied. Among the forty-two numbers on the program are mid-day panel discussions, operative and non-operative clinics, educational and scientific exhibits, medical motion pictures, general surgery, a fracture clinic, and a public meeting, the subject of which will be conservation of health.

Among the distinguished visiting surgeons are Dr. Howard C. Naffziger of San Francisco, president of the American College of Surgeons, Dr. George Crile of Cleveland, Dr. Frank E. Adair of New York, Dr. Fred W. Bancroft of New York, Dr. George H. Gardner of Chicago.

The proximity of the place of meeting, Indianapolis, will insure a large delegation of surgeons from Michigan to this three day post-graduate course in surgery.

Van Meter Prize Award

The American Association for the Study of Goiter again offers the Van Meter Prize Award of Three Hundred Dollars and two honorable mentions for the best essays submitted concerning original work on problems related to the thyroid gland. The Award will be made at the annual meeting of the Association which will be held in Cincinnati, Ohio, on May 22, 23 and 24, 1939, providing essays of sufficient merit are presented in competition.

The competing essays may cover either clinical or research investigations; should not exceed three thousand words in length; must be presented in English; and a typewritten double-spaced copy sent to the Corresponding Secretary, Dr. W. Blair Mosser, 133 Biddle Street, Kane, Pennsylvania, not

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later than April 15, 1939. The Committee, who will review the manuscripts, is composed of men well qualified to judge the merits of the competing essays.

A place will be reserved on the program of the annual meeting for presentation of the Prize Award Essay by the author if it is possible for him to attend. The essay will be published in the annual Proceedings of the Association. This will not prevent its further publication, however, in any Journal selected by the author.

* * *

Physicians who have addressed county medical societies and lay groups during the past month include:

T. W. Thompson, M.D., Traverse City, addressed the Alpena County Medical Society on December 13, 1938, on the subject of "Mental Hygiene."

Chairman of The Council P. R. Urmston and Secretary L. Fernald Foster of Bay City drove through a blinding snow storm and sub-zero weather to a meeting of the O.M.C.O.R.O. County Medical Society, on January 24. They discussed voluntary Group Hospital and Medical Insurance.

Paul Jordan, M.D., of Ann Arbor, addressed the Monroe County Medical Society on December 15, 1938, on the subject "The Doctor and the Child."

Don W. Gudakunst, M.D., State Commissioner of Health, spoke on "The Aims and Functions of the State Department of Health" at the meeting of the Monroe County Medical Society on January 19.

Robert L. Schaefer, M.D., of Detroit, discussed "Diagnosis and Treatment of Gonadal Immaturity" at the meeting of the Calhoun County Medical Society of February 7.

Carl D. Camp, M.D., of Ann Arbor, gave a lecture to the Bay County Medical Society on Febru-

ary 8 on the subject "Relations of Cardiovascular Lesions and Neurological Conditions."

T. E. DeGurse, M.D., of Marine City, spoke before the Lions Club of Port Huron on February 8. His subject was "Federal Health Program."

John K. Ormond, M.D., Ann Arbor, discussed "Kidney and Bladder Infections" at the meeting of the St. Clair County Medical Society on February 14.

L. Fernald Foster, M.D., of Bay City, spoke to the Berrien County Medical Society on February 15 on the subject "Medical Security." Executive Secretary Wm. J. Burns discussed "Michigan's Group Hospitalization and Medical Care Plans" at the same meeting.

L. G. Christian, M.D., and T. I. Bauer, M.D., of Lansing, presented the subject of "The Treatment of Pneumonia" before the Gratiot-Isabella-Clare County Medical Society on February 16. The presentation was divided into medical and specific treatment with serum.

David C. Kimball, M.D., of Detroit, addressed the Shiawassee County Medical Society on February 16 on the subject "Sedation in Obstetrics."

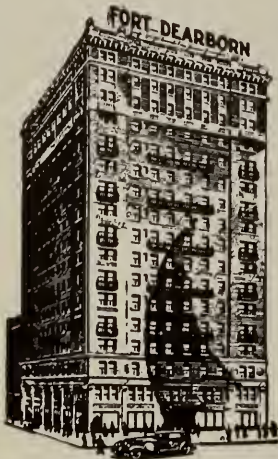
John Sander, M.D., Lansing, talked on the subject "Allergic Conditions in Childhood" at the meeting of the Eaton County Medical Society on February 16.

L. G. Christian, M.D., Lansing, spoke to the Lansing Exchange Club on February 20 on "Michigan State Medical Society's Group Medical Care Plan."

E. Perry McCullagh, M.D., of Cleveland, Ohio, presented a lecture to the Ingham County Medical Society on the subject of "Some Recent Trends in Clinical Endocrinology" at its meeting of February 21.

John B. Jackson, M.D., of Kalamazoo, gave the First Annual Crane Memorial Lecture on the sub-

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ject of "Therapeutic Radiology" on February 21 to the members of the Kalamazoo Academy of Medicine.

A. E. Price, M.D., of Detroit, discussed "Pneumonia" at the meeting of the Bay County Medical Society on February 22.

Plinn Morse, M.D., of Detroit has presented a talk before the Kent County Medical Society on February 8, the Ingham County Medical Society on February 7, the St. Clair County Medical Society on February 28, on the subject "The National Health Program." Doctor Morse is scheduled to present "Causes of Sudden Death" at the meeting of the Ingham County Medical Society on March 21.

L. Fernald Foster, M.D., Bay City, spoke at the meeting of E.R.A. Administrators from seventeen southern counties of Michigan on March 8, on the subject "Michigan's Group Hospitalization and Group Medical Care Plans." Don W. Gudakunst, M.D., Lansing, addressed the administrators also.

Wilfrid Haughey, M.D., Battle Creek, spoke to the combined meeting of the Rotary Club and the Exchange Club of Sturgis on February 13. His subject was "Michigan's Group Hospitalization and Medical Care Plans."

Wm. J. Burns, Executive Secretary of the Michigan State Medical Society, addressed the Council of Social Agencies of Lansing on February 23 on the subject of "Michigan Group Medical Care Plans."

Wm. H. Marshall, M.D., of Flint, spoke to the Lapeer County Medical Society on January 13 on the subject of "The Recognition and Treatment of Early Heart Disease."

Claire Fulsome, M.D., of Ann Arbor, addressed the same meeting on the subject of what the State Department of Health's division of Maternal and Infant Welfare is doing.

* * *

Northern Tri-State Medical Association

The Northern Tri-State Medical Association comprises the states of Michigan, Ohio and Indiana. It was established in 1873 and is, therefore, one of the older medical institutions of this part of the United States. The annual meeting for 1939 will be held at South Bend, Indiana, on April 11, at the Hotel Oliver. The following are the speakers for the day, with their subjects:

A. C. Furstenberg, M.D., Dean and Professor of Otolaryngology, University of Michigan Medical School—"Nasal Accessory Sinus Disease in the General Practice of Medicine."

Daniel P. Foster, M.D., Physician in Charge, Division of Metabolism, Henry Ford Hospital—"Newer Concepts of Diabetes Mellitus."

Charles G. Johnston, M.D., Professor of Surgery, Detroit College of Medicine—"Physiological Implications in the Management of Intestinal Obstruction."

David Edwin Robertson, M.D., Assistant Professor of Surgery, University of Toronto—"Fractures in Children."

Robert M. Moore, M.D., Clinical Professor of Cardio-Vascular-Renal Disease, Indiana University School of Medicine—"Some Remarks on the Diagnosis and Treatment of Heart Disease."

A. Jerome Sparks, M.D., Fort Wayne, Indiana—"Calculi in the Upper Urinary Tract."

Frank C. Walker, M.D., Indianapolis, Indiana—"The Relation of Cervical Lesions to Carcinoma of Cervix Uteri."

Harold N. Cole, M.D., Clinical Professor of Dermatology and Syphilology, Western Reserve University School of Medicine—"Relapse in Syphilis, its Importance in Diagnosis, the Public Health Aspect, and its Treatment."

Waldo E. Nelson, M.D., Department of Pediatrics, College of Medicine, University of Cincinnati—"The Treatment of Diabetes Mellitus in Children."

Bruce K. Wiseman, M.D., Associate Professor of Medicine, Ohio State University College of Medicine—"The Cytolytic Functions of the Spleen in Relation to the Blood Diseases."

* * *

CREDIT IS DUE

Registration for Tuesday, September 20, 1938, at the MSMS Convention was as follows:

Drs. Hugo Aach, Kalamazoo; Charles D. Aaron, Detroit; Max Abramson, Detroit; Sidney Adler, Detroit; Jack

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Agins, Detroit; J. H. Ahronheim, Jackson; R. W. Albi, Lake City; Herman F. Albrecht, Detroit; Reuben Guy Alexander, Laingsburg; C. H. Alexander, Kalamazoo; Norman M. Allen, Detroit; H. R. Allen, Battle Creek; L. K. Allen, Roseville; Walter Lyman Anderson, Detroit; J. W. Ankley, Detroit; Samuel S. Altshuler, Detroit; Florence Ames, Monroe; A. B. Armsbury, Marine City; O. S. Armstrong, Detroit; A. G. Armstrong, Detroit; Stilson R. Ashe, Detroit; R. M. Athay, Detroit; Lawrence R. Adler, Detroit; J. A. Attridge, Port Huron; J. J. Austin, Tawas City.

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* * *

I recall an amusing incident, related to me by the Chinese ambassador. A young Chinese was here in America. He was very anxious to perfect his English but would call his skin his hide. The ambassador called his attention to this and said, "Hide is never used in polite society, you must always say skin."

This young Chinese had a beautiful tenor voice and often sang solos in church. Shortly after his talk with the ambassador he was called upon to sing, and he convulsed the congregation by singing "Skin me Oh, my Saviour, Skin me," et cetera.

Chemistry Master: What is the most outstanding contribution that chemistry has given the world?

Student: Blondes.

Pearson's Weekly.

JOUR. M.S.M.S.

THE DOCTOR'S LIBRARY

Acknowledgement of all books received will be made in this column and this will be deemed by us a full compensation to those sending them. A selection will be made for review, as expedient.

ELEMENTARY ANATOMY AND PHYSIOLOGY. By James Whillis, M.D., M.S., F.R.C.S., University Reader in Anatomy, Guys Hospital Medical School; Formerly Lecturer in Anatomy in the University of Durham. Octavo, 352 pages, illustrated with 87 engravings. Cloth, \$3.50, net. Philadelphia: Lea & Febiger, 1939.

This is an admirable work for the first year medical student or the layman who may be interested in the subject. The treatment of anatomy and physiology, one might say in the same paragraphs adds interest to both subjects. The work is heartily recommended for its clarity, as well as for the inherent interest in the subjects.

PRINCIPLES OF HEMATOLOGY. With 100 Illustrative Cases: By Russell L. Haden, M.A., M.D., Chief of the Medical Division of the Cleveland Clinic, Cleveland, Ohio; Formerly Professor of Experimental Medicine in the University of Kansas School of Medicine, Kansas City, Kansas. Octavo, 348 pages, illustrated with 155 engravings and a colored plate. Cloth, \$4.50 net. Washington Square, Philadelphia: Lea & Febiger, 1939.

The science of hematology has made such rapid advances that new books of authoritative information are necessary to keep pace with the ever expanding knowledge. Naturally a department in which much research is made requires simplification and clarification. Haden's work will be welcomed, not only by the professional hematologist, but by the clinician who must keep abreast with the interpretation of blood findings. The work is well illustrated and the text is presented with great clarity.

ELECTROTHERAPY AND LIGHT THERAPY. By Richard Kovacs, M.D., Clinical Professor and Director of Physical Therapy, New York Polyclinic Medical School and Hospital, New York. Third Edition. Cloth. Price, \$7.50. Pp. 744, with 308 illustrations. Philadelphia: Lea and Febiger, 1938.

This book has undergone thorough and extensive revision, and stands as a monument to the author, as well as to American physical medicine. Several new chapters have been added. One deals with the relationship of electrophysiology to electrotherapy, and provides the reader with a lucid understanding of the clinical application of the chronaxie (excita-

tion time). Two chapters on the physics, effects and clinical application of the short wave current tend to bring this subject up to date. The new chapter on hyperpyrexia is almost a complete monograph in itself, although the author would lead one to believe that electropyrrexia is superior to heated and humidified cabinets in the production of artificial fever. The physics, physiological effects and clinical applications of heliotherapy and artificial light therapy have been refurbished. This book should be considered as an outstanding contribution to the physical field of medicine.

A MANUAL OF FRACTURES AND DISLOCATIONS. By Barbara Bartlett Stimson, M.D., Sc.D., F.A.C.S., Associate in Surgery in the College of Physicians and Surgeons, Columbia University, New York City, Assistant Attending Surgeon to the Presbyterian Hospital, New York City. Illustrated with 95 engravings. Philadelphia: Lea & Febiger, 1939. Price \$2.75.

This small manual (for it contains only 214 pages) is, as the author intimates in her preface, intended primarily for medical students, but it goes forth with the hope that the general practitioners will also find it of value. Every part of the skeleton is dealt with by means of diagrammatic illustrations (there are no radiographs). While this book will serve as an introduction to the subject, it is almost needless to say that it will not replace the standard works on fractures and dislocations.

Postgraduate Course in Pediatrics

A postgraduate course in pediatrics will be given at the Henry Ford Hospital, Detroit, on April 3, 4, and 5, 1939, beginning at 8:45 A. M. This comprises three full days of lectures, discussions and clinics. It is sponsored by the Henry Ford Hospital, the Children's Hospital of Michigan and the Herman Kiefer Hospital, Detroit. The announcement reads: The course in pediatrics and contagious diseases is a contribution of the American Academy of Pediatrics. It consists of lectures and clinics on those conditions in infancy and childhood which contribute prominently to mortality and disability, particularly those whose management has been facilitated by recent contributions.

In addition to this, a graduate conference for physicians will be held each Wednesday morning in April. These conferences are sponsored by the Wayne County Medical Society, Detroit Department of Health, Wayne University College of Medicine, American Academy of Pediatrics (Michigan Branch), Michigan Society for Mental Hygiene, Inc., and Michigan Department of Health. The Wednesday morning programs will be at the Herman Kiefer Hospital, Detroit.

All physicians are invited. There is no registration fee.

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Among Our Contributors

Dr. F. T. Andrews of Kalamazoo is a graduate of the University of Michigan, class of 1918. He is councillor for the fourth district, Michigan.

Dr. R. S. Harter graduated at Rush Medical College, Chicago, in 1903, specialized in Abdominal Surgery, and has practiced in Michigan since that time.

Dr. Lawrence M. Hilt is a graduate of St. Louis University, 1926, and a Diplomate of the American Board of Radiology. He is, at present, Director of the Department of Radiology, Butterworth Hospital, Grand Rapids, Michigan.

Dr. Robert B. Kennedy—Graduated University Toronto, 1918. Fellow American College of Surgeons, Member the American Board of Obstetrics and Gynecology. Attending in Gynecology and Obstetrics at Woman's and St. Joseph's Mercy Hospitals, Detroit. Member of Medical Executive Board of Cottage Hospital, Grosse Pointe, Mich. Assistant Professor of Obstetrics Wayne University College of Medicine. Member of Detroit Ob. & Gyn. Society.

Dr. B. H. Larsson was graduated from the Wayne University College of Medicine with the degree of M.D. in 1914. He received a degree of M.Sc. from the same university in 1938, in recognition of an academic thesis on The Source of Gallstones. He served with Harper Hospital Unit in France and Italy during the World War. He is a general surgeon in private practice and a member of the surgical staff of Harper Hospital in Detroit.

Dr. Constantine Odén was graduated from the University of Wisconsin with the degree of B.S. in 1918, M.S. from New York University, 1920, and M.D. from the Bellevue Medical College in 1920. He attended European Clinics during 1925-1926. Dr. Oden is attending surgeon at Hackley and Mercy Hospitals, and is President of the Muskegon County Medical Society.

Dr. Ward F. Seeley is a graduate of the University of Michigan, class of 1911. After graduation he was for four years a member of the teaching staff of the Department of Obstetrics and Gynecology in this institution. At present, he is Professor and Chairman of the Division of Obstetrics and Gynecology, Wayne University, College of Medicine, and is a member of the staffs of Harper, Receiving, and Herman Kiefer Hospitals.

Dr. Carl F. Shelton—Graduated from Medical College of Virginia 1930. Attending in Gynecology Woman's Hospital, Detroit. Junior Attending in Gynecology and Obstetrics, St. Joseph's Mercy Hospital, Detroit. Fellow of the American College of Surgeons.

CORRESPONDENCE

January 26, 1939.

Michigan State Medical Society:

At the regular meeting of the Bay County Medical Society held Wednesday, January 25, the following action was taken:

"Whereas, a tremendous amount of work is being done by The Council and committees relative to insurance plans, and

"Whereas, the membership of the Society should demonstrate faith in the judgment and sincerity of these groups,

"Be it Resolved That this Society go on record as endorsing the action of The Council and the Committee on the Distribution of Medical Care, in connection with the development of Hospital and Medical Service Plans, and that this Society accord The Council and the Committee a vote of confidence in their work and efforts."

A. L. ZILIAK, M.D., *Secretary*,
Bay County Medical Society.

January 14, 1939.

Council of the
Michigan State Medical Society
2020 Olds Tower
Lansing, Michigan

Gentlemen:

At a special meeting of the Shiawassee County Medical Society held January 12 the action of the House of Delegates at their special meeting was discussed.

Dr. A. L. Arnold, Jr., our delegate, explained the three proposals presented before the State Society, and the action taken upon them. A resolution was passed approving this policy, and it was requested that you be notified.

Very truly yours,
RICHARD J. BROWN, M.D., *Secretary*,
Shiawassee County Medical Society.

February 21, 1939.

Michigan State Medical Society,
2020 Olds Tower,
Lansing, Michigan

Attention: Mr. Wm. Burns, Executive Secretary.

Dear Mr. Burns:

It is the opinion of the Economics Committee of the Oakland County Medical Society, which of course represents the thought of the physicians of Oakland County, that every effort should be made to hasten the adoption of proper legislation that will enable the Michigan State Medical Society to set up non-profit corporations for medical care. We also favor the adoption of like legislation so that hospitals throughout the state may also extend their services on an insurance basis to the public at large.

This information may be used by you and the Society in any way that it pleases.

Yours very truly,
FREDERICK A. BAKER, M.D., Pontiac.

JOUR. M.S.M.S.

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No. 4

GERIATRICS

CARL D. CAMP, M.D.

ANN ARBOR, MICHIGAN

Each period of life—infancy, adolescence, maturity, and involution—presents special problems for the physician. The study of infancy and its diseases has given rise to the specialty of pediatrics, but a similar study of the involution period seems to have been neglected. There should be physicians who will make an intensive study of the needs and care of the involution period, the diseases peculiar to that period and the modifications in the symptoms and course of other diseases and injuries when they occur in the aged. The objective should be not only to prolong life, but to increase the happiness and efficiency of the individual as well.

At the present time there are special reasons for attention to the subject of geriatrics. Statistics show a marked decrease in infant mortality and a gradually increasing life span. It follows from this that in the future there will be a much larger proportion of the population over the age of sixty years. From a report of the Committee on Population Problems to the National Resources Committee, May, 1938, it appears that in 1930 there were about twelve million children under five years of age, and six and one-half million over sixty-five years of age, but if present trends continue, by 1980 there will be only six and one-half million of children under five, and twenty-two million over the age of sixty-five years. Due to the fact that industry and institutions are enforcing rules for retiring at a certain age and the effect of pension systems, social security acts and similar laws, a large number of these older people will find themselves without their regular employment but in a position where, with limitations, they may do as they please. Wise and intelligent advice at this period would seem especially necessary.

It is difficult to set a definite chronologic

age limit for this group. Some people age much sooner than others. The fact is that involution changes do not occur simultaneously in all organs and functions of the body. Either the weaker parts wear out faster or some part is used or abused to a greater extent than others. Our advice must be based on some definite and useful criteria of actual age rather than chronologic age. In this respect statistics and averages are of little use. We need to know what organs and what functions have degenerated and to what degree. A special series of observations or tests could be devised to show these changes but it should be emphasized that these are not tests for diseases, and having completed a series of such observations, together with a general physical examination, we are in a position to know the individual and his special incapacities as of that time, and when we add to this a knowledge of his economic and social situation, his previous training and work, and his special aptitudes or desires, we can lay before him a plan for living and doing which will fit all the requirements of his case. Stanley Hall once observed that old people constitute "a class in the community that is somewhat alien,

its intrinsic nature but little known, and the services it was meant to render but little utilized."

Seventh Decade One of Change

Sometime between the ages of sixty and seventy most men are confronted with the problem of a change in their human relationship. They may retire and do nothing, they may continue their former occupation, they may change their occupation or modify their relation to it, or they may take up some hobby or amusement, such as travel, to occupy their time and thoughts. Of course, social and economic factors will influence this decision. In the case of many large corporations or institutions, retirement at a certain age is the rule, but where a man is an independent business man or professional man, the decision is his own. The retirement rule for executives is undoubtedly a good rule. Change is a law of growth and the rigidity of method and mental attitudes that develop with age is bound to be in conflict with the progressive ideas of the younger element.

For those who love their work or who feel compelled to continue it from economic necessity, a modification of the work might be advised, but it is a mistake to make the older man a director or planner, such as is often done. It should rather be a step in the direction of routinising the work, leaving the responsibilities of direction to younger minds. This may be a blow to the older man's pride but it is certainly better for his health and the health of his company. Other things being equal and in the absence of any special factors, one advises the man over sixty to continue a previous occupation or interest, modified only to the extent of lessened responsibility and more fixed routine.

Heredity Fundamental for Longevity

The cause or causes of involution change is not known. Perhaps the view most widely held is that there is a certain amount of vital force or energy in each living tissue and that, when this is exhausted, involutional changes begin. The source of this energy is inherited, and hence heredity plays an important part in the life span of the tissue or organic structure. The study made by Brunie shows "heredity is the fundamental requirement for longevity." Sir William Gowers made use of this

idea in his explanation of the cause of certain degenerative diseases of the nervous system; he called them abiotrophies. This theory of abiotrophy could be extended to cover many of the so-called involutional diseases.

Another widely held idea is that the involutional changes are the result of use of the parts affected. If the body is looked upon as a piece of machinery, this view seems plausible, but it does not agree with the facts of every-day observation. Practically all of the organs of the body are strengthened by constant use and atrophic changes are delayed, thereby. Even the abuse of an organ does not lead to changes like those of senility.

Toxic Theory Not Valid

The theory that senility might be due to some toxin in the body or to the presence of some systemic poisoning (Metchnikoff) or of some focal infection, has been advanced. This theory is enticing as it holds out the hope of preventing or indefinitely postponing the changes of old age. Unfortunately, one can find no real proof of the validity of this theory in spite of reported instances of longevity due to some special diet or mode of life. Old age and involution changes will continue to occur in spite of our best efforts to prevent it. What we can do is to make adjustments in the living conditions and in the management of the diseases of the aged person.

Evidence of involutional change may be noted in all parts of the body. In old age there is a loss of the subcutaneous fat, especially noted on the back of the hands; loss of elasticity of the skin, which may be measured by pinching the skin and noting the time it takes to assume its former state, also by the presence of fine wrinkles; the loss of pigment control and vicarious pigmentation; and, finally, the desiccation of the skin due to glandular atrophy. The skin changes are likely parallel changes in the heart and blood vessels. Alopecia and greying of the hair are generally regarded as involutional signs but they are too variable in age of onset to be of any special significance. The mucus membranes show changes similar to those in the skin and their occurrence in the lining of the membrane of the gastro-intestinal tract may account for some digestive disturbances of the aged.

In the eyes an arcus senilis is some indication of aging, although it may occur in youth in certain families. Presbyopia is a better indication and tables have been made by ophthalmologists showing the degree to be expected at different ages. It should be remembered that presbyopia does not imply a loss of visual acuity and that exophoria parallels the presbyopia.

Demineralization of Long Bones

Changes in the bones and joints are not only good tests of age but are often clinically important because of the possibility that they may be mistaken for evidence of disease. The x-ray study shows a progressive rarefaction of the long bones in old age. The sternum is usually a solid mass at sixty with complete calcification of the costal cartilages. In woman the costal cartilages solidify somewhat earlier, possibly at the age of forty. The hypertrophic spurs on the vertebræ is another sign of old age.

The lung changes of old age are not especially significant. The best known is the so-called senile emphysema. It is extremely variable and its occurrence suggests that the individual probably has had hay fever or asthma. X-ray study shows a descent of the bifurcation of the trachea which is constant with advancing years.

The x-ray is of considerable assistance in the study of senile changes in the circulatory system. The descending aorta is difficult to see in a person under thirty, and the size, shape, and position of the aorta changes with age. The arch becomes elongated so that it becomes greater than the vertical diameter of the heart instead of less, as in the youthful. At sixty, the iliac arteries are almost invariably calcified.

The blood chemistry of the aged does not differ materially from that of maturity. The response to certain tests, such as the blood sugar tolerance curve, may show some changes, but these are not definite. O. H. P. Pepper states that a curve showing a marked storage defect is not uncommon.

Atrophic Changes in Gland Structure

The glandular activities of the aged are obviously lessened due to atrophic changes in the gland structure, and this applies to the ductless glands as well. However, instances of serious failure of gland activity, such as would threaten life, are rare in the older group.

The involution of the sex glands of the female, as shown by cessation of menstruation, occurs regularly and at a comparatively early age, but, contrary to popular opinion, this may be attended by few if any other signs of involution. The activities and desire of the female remain practically unchanged.

In the male the activities of the sex glands seem to be much more variable. Instances of impregnation by men over ninety years of age are not uncommon and in Brunie's study he found that sixty per cent of the men had retained their sexual power to the age of eighty years. The reason for this variability is unknown.

The kidney of old age is the arteriosclerotic type and usually functions well enough unless under some exceptional stress, such as the ingestion of a poison or a serious burn of the skin, et cetera. Pepper found some kidney atrophy in ninety per cent of old people at autopsy but not true nephritis.

According to Dr. Reed Nesbit, the bladder shows no definite senile change. The tendency to incontinence in the old is most likely due to senile change in the spinal cord, impairing the reflexes, and is also, in part at least, due to a senile cerebral condition. Hyperplasia of the prostate is not a sign of age but of disease, and may occur in the young. It has no correlation with sex potency (Reed Nesbit) and you could not use either as a test for senile changes.

In the female genitalia the noticeable changes are the loss of elasticity of the parts—labia, etc., the smoothing out of folds and regression in size. The mucous membrane is pale, smooth, and glistening, and the rugæ smoothed out. The cervix is reduced in size and projects less in the vagina, so that eventually the cervix and vagina are on a plane. The upper portion of the vagina is narrower and the uterus smaller.

Circulatory Changes Very Important

The importance of the circulatory changes in old age can hardly be overestimated. It is recognized in the old saying that "a man is as old as his arteries." There is a gradual loss of elasticity in the wall of the arteries that often closely parallels the loss of elasticity in the skin. The statement that the systolic blood pressure should be one hundred plus the age of the individual is based

on the assumption that the heart will continue to contract with its accustomed vigor, but that gradually hardening arteries will impede the flow of blood and, therefore, cause a rise in the pressure. A rise in the systolic blood pressure in elderly people can be anticipated and, even if it exceeds the usual amount, might be considered desirable as indicative of a healthy cardiac condition. The danger of a bursting vessel, cerebral hemorrhage, for instance, is not as great as the danger that the diminishing calibre of the artery will lead to a local stoppage of the circulation, cerebral thrombosis, and the higher blood pressure tends to prevent this. Arteriosclerotic change is especially likely to result in a local thrombosis, either in the brain or elsewhere, under circumstances that lower blood pressure, such as operations, rest in bed, or even if a part of the body, such as a leg, is placed absolutely at rest. The importance of transient lowered blood pressure in causing thrombosis, either cerebral, coronary, or peripheral, is emphasized by many authors (Pepper and others) and this is true even though the habitual blood pressure may be high. In 1905, Dr. C. W. Burr, of Philadelphia, and myself, pointed out that in cases of hemiplegia, due to cerebral thrombosis in old people, it was dangerous to keep them absolutely quiet in bed for the reason that they would develop weakness in the arm or leg opposite to the paralyzed side. Necropsy showed that this paralysis was due to a degenerative neuritis and a partial thrombosis of the arteries on that side. It could be prevented by having the patient exercise the non-paralyzed side.

In the heart itself, the only change that is due solely to age is a degree of myocardial degeneration, difficult to detect except by the response to exercise and to drugs (?). It would appear that the greatest number of deaths from heart disease do not occur as a result of old age but rather in the interval between fifty and sixty.

In civilized communities the prevalence of pyorrhea and early decay of the teeth often results in their loss at an early age. Consequently we can no longer regard their loss as evidence of senility, and, due to the skill of the modern prosthetic dentist, the loss of teeth is not a serious handicap. There is an hereditary factor in early tooth decay as in premature greying and loss of

hair, which must also be taken into consideration.

The changes in the nervous system may be among the earliest and most significant in old age. These do not appear in all parts simultaneously. The peripheral spinal nerves are not affected early as a rule unless there is some added factor, such as deprivation of vitamin B. In many cases there is evidence of change in the autonomic nervous system as shown by the reaction to cold or heat, and to drugs, but definite neuropathologic changes in these tissues have not been found.

In the spinal cord, senile changes may occur early and be marked and typical. The pathologic change consists of a slowly progressive degenerative change in the posterior and lateral columns of the spinal cord, somewhat similar to that seen in cases of pernicious anemia, but with more of a tendency to be an annular or marginal sclerosis. There is a marked increase in pigment deposit, both in the grey and white matter, and numerous corpora amylacea, especially at the periphery of the cord. The patient develops a marked weakness in gait, which is stiff, slow, and dragging, but complete paralysis is rare. There are practically no objective sensory changes except some loss of vibratory sensibility but often complaints of subjective sensory disturbances. The tendon reflexes are diminished in about half the cases, but rarely lost.

There are some neurological disorders that are definitely connected with a senile degeneration of certain parts of the nervous system. Perhaps the most common of these is paralysis agitans or Parkinson's disease. While a similar syndrome may occur in the young as a result of chronic encephalitis, syphilis, or head trauma, the type which is due to a progressive degeneration of the lenticular nucleus is rare before the age of sixty. The bent-over posture, the flexed position of the extremities, the shuffling gait, the general rigidity and tremor, all suggest an exaggeration of some of the common phenomena of advanced senility, yet the pathologic process is really limited and the sensibility and mentality are not generally affected. The prognosis for recovery in such cases is hopeless but much can be done to overcome the difficulty by keeping the patient active, both physically and mentally; by special training, and by the use of some drug of the atropine group which tends to

lessen the rigidity and tremor. The use of benzedrine, which has been suggested for these patients, has not been of much value in the cases in which I have tried it.

Senile Tremor

Senile tremor is often a distressing phenomenon in the aged. It is allied to hereditary tremor, which rarely develops before the age of forty, although it may come on earlier in successive generations. This tremor affects the head as early or earlier than the extremities and is not usually accompanied by the other signs of paralysis agitans. It is not affected by drugs. As a rule it is not disabling, although it may be annoying on the ground of appearance.

Persistent insomnia, often with reversal of the sleep rhythm so that the individual sleeps during the day, may be regarded as a senile condition, although it is often entirely unaccompanied by any other neurologic sign or symptom. It is difficult to overcome this condition and the fact that a similar phenomenon sometimes occurs in chronic encephalitis lends credence to the theory that it may be due to some localized degenerative change in the neighborhood of the third ventricle, the so-called sleep center. The use of the ordinary hypnotics such as the barbiturates, chloral hydrate, bromides, and so on, is undesirable, first, because they are ineffective unless given in large doses and long continued, and second, because they are likely to give rise to unpleasant mental disturbances in these elderly people, such as hallucinations, deliria, et cetera. An adjustment of their routine activities and meal hours is sometimes of benefit. Warm baths, massages, changes in bedding, et cetera, should all be tried. I have found that alcoholic drinks at bedtime may be of some use.

Perhaps the most common and most feared neurologic conditions in the old are those due to cerebral circulatory conditions—cerebral arteriosclerosis, cerebral hemorrhage, and cerebral thrombosis. Cerebral arteriosclerosis can occur quite independently of arteriosclerosis elsewhere in the body and seemingly results from strenuous mental activity. Cerebral hemorrhage is more common between the ages of fifty and sixty, when the heart is strong and the patient active.

In cerebral thrombosis there is usually no

evidence of shock effect and the condition often occurs during sleep. If the thrombosis affects an artery supplying one of the so-called silent areas of the brain, the effect may not be noticed. When cerebral thrombosis occurs in the aged it usually indicates cerebral arteriosclerosis of the angitis obliterans type combined with a relatively low blood pressure. It is not advisable to give drugs that lower blood pressure but the iodides may sometimes be used to advantage. Certainly these patients should not be kept in bed if it is possible to avoid it.

Mental Changes Incident to Old Age

The mental changes of old age have been the subject of considerable discussion. It is as true here as in other aspects of involution, that there is such marked variation in individuals that it is impossible to lay down any general rule. Perhaps one of the earliest indications of change in most cases is a certain lack of elasticity, a kind of mental rigidity, corresponding to the physical rigidity of muscles and other tissues. It is shown by a desire to live by established formulæ and a dislike of change. This rigidity is often misinterpreted as an inability to learn, but more often it is a disinclination.

Another characteristic of old age is a failing memory, especially for recent events. This has a tendency to be progressive so that eventually almost all of the daily events are forgotten and only the memories of childhood remain. Naturally this is accompanied by a corresponding impairment of judgment.

With the beginning of old age there is likely to be an accentuation of previous character traits, so that the suspicious type become paranoic, the saving become miserly, and the fearful, anxious type develop depressive and hypochondriacal delusions. The desire for financial security becomes almost an obsession, often resulting in such absurdities that the man of eighty starves himself in order to save up money for his old age.

A diagnosis between the mental changes due to cerebral arteriosclerosis and those due solely to senility is not easy. In general, one may say that the senile changes are more gradual and steadily progressive, and that the arteriosclerotic may show paralytic phenomena, aphasia, convulsive seizures, et cetera, and more neurologic findings.

Each a Law unto Itself

No general rules can or should be laid down to govern the activities or mode of life of elderly people. The variations in their previous life habits and in the aging process itself is too great. Advice with reference to clothing, exercise, diet, et cetera, must be individualized.

In arranging a diet, personal preferences must be considered. Neither the meat eater nor the vegetarian can prove his contention that his health or longevity is due to his diet. Perhaps the most important point is to prevent the patient from becoming a food faddist of any kind, and to prevent overweight. It might be remarked in passing that King Gustave of Sweden, who, at the age of eighty, plays a fine game of tennis, is six feet, three inches tall, and weighs 125 pounds. The tendency to constipation, common in the aged, may be combated by special diet, but I can see no objection to the regular use of cascara sagrada, or the official aloin, belladonna and strychnine pill. It has a tonic effect on the bowels which is necessary under the circumstances. I think that the routine use of oil or saline laxatives is not advisable.

The amount of physical exercise taken by a man plays an important part in his health and happiness. The advice to take exercise and more exercise often given to elderly people is a mistake. I have found that in some cases, even a light simple setting-up morning exercise may leave the patient fatigued all day. The man whose life has been chiefly sedentary and who is unused to exercise should be advised to take only such exercise as he enjoys, and preferably such activities as moderate walks, a nine hole game of golf on a fairly level course, rowing a boat or paddling a canoe in calm water, or playing croquet. It is true of course that many oldsters engage in strenuous exercise but no man should be advised to take up in later years a form of exercise to which he is unaccustomed, unless it be of the lightest. The late Chauncey Depew, president of the New York Central Railroad, and a brilliant old gentleman who lived to give out birthday interviews long after most of his admirers expected him to die, when asked what kind of exercise he took, said: "I get my exercise acting as pallbearer to my friends who exercise." While I am warning against exercise, I

should also warn against the opposite extreme. Laplace and Nicholson (*Journal of the A.M.A.*, Vol. 110, No. 4, January 22, 1938) point out that prolonged recumbency may be a contributing cause of death in elderly people. A number of surgeons recognize this fact and insist that elderly patients become ambulant as soon as possible after an operation. Massage will not take the place of exercise in such cases.

A really important feature of the advice to any elderly person relates to his mental activities. To the man who has an occupation or profession that requires his constant attention it is, of course, superfluous, but to the man who is retiring or who is unemployed, it is a great problem, the more so perhaps because it is often not recognized as such. The exigencies of the situation may require a complete change of occupation and interests. Although this may cause some difficulty, such adjustments are not impossible if it is remembered that it takes time and the patient does not become discouraged. Previous hobbies can become useful occupations and the more they can be worked into a daily routine, the better. Many men look upon the age of retirement as a time to travel. If the individual is not too old and is somewhat used to travel so that he can adjust himself to the difficulties that travel may bring, this may be satisfactory. I have advised against travel if there is any serious physical disability. I might mention that I have found old people frequently enjoy an ocean voyage, especially the routine life on smaller ships.

The factor of old age, as it modifies the symptoms and management of disease, is often an important consideration.

In refracting elderly people, it is better not to use a mydriatic because it is not usually necessary, and also because of the danger of glaucoma. In the infectious diseases of the eye, foreign protein therapy is valuable in the young but has little or no effect in the old. The so-called post-operative cataract delirium is often due to the injudicious use of sedative. In correcting refractive errors, young people are more comfortable if undercorrected but old people should be given full correction, although they sometimes have difficulty in adjusting themselves to the full correction of astigmatism.

The most difficult feature of the treat-

ment of infections in the aged is keeping up their morale and their desire to get well. It should also be pointed out that in the old the symptoms of disease may differ from those in the younger group. For instance, pneumonia without fever, appendicitis without pain, and so on; as Rolleston puts it—"the organs suffer in silence." The surgeons generally agree that operations are now done on elderly patients that probably would not have been attempted in years

past. This is chiefly because of the improvements in anesthesia and the more frequent use of local anesthesia and spinal anesthesia.

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THE THYROID GLAND AND THE FUNCTION OF REPRODUCTION*

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It is almost common knowledge that an increase in the size of the thyroid gland, so-called simple or colloid goiter, may occur in the course of pregnancy and at the time of puberty, the menses and the menopause. In certain regions in which goiter is endemic, the increase in size of the gland has occurred with such consistent regularity in successive pregnancies that the term "stepladder" thyroid enlargement has been applied to it. Within comparatively recent years various observers have noted that change in function of the thyroid gland, namely hypothyroidism,† or diseases of the gland associated with hyperthyroidism, may be accompanied by disturbances of menstruation, decrease in fertility and abortion.

The object of this paper is (1) to review briefly those interrelated functions of the endocrine glands which appear to be concerned with reproduction, and particularly the relationship of physiologic processes of the thyroid gland to ovarian function and pregnancy, (2) to relate the effects produced by hypothyroidism on the reproductive function and their treatment, (3) to discuss diseases of the thyroid gland which are influenced by, or which may influence, the menstrual function and pregnancy, (4) to outline the treatment of colloid goiter, of adenomatous goiter with and without hyperthyroidism and of exophthalmic goiter complicating pregnancy, and (5) to show the results of treatment.

The activities of the endocrine glands known to be chiefly concerned with reproduction are interrelated. Among the several known secretions of the anterior lobe of the pituitary gland is the thyrotropic hormone, which sustains the function of the thyroid gland, and the gonadotropic or follicle-stim-

ulating and luteinizing hormones. Follicular fluid, or the estrogenic hormone, has, among its activities, an inhibitory effect on the anterior lobe of the pituitary gland. Both the estrogenic hormone and progesterone are concerned with the preparation of the endometrium and its exfoliation, the cycle of menstruation. The thyroid gland produces and delivers to the circulation a secretion, thyroxin, which controls the rate of consumption of oxygen by the cells of the body and, accordingly, the production of heat and energy by the body. In brief, sufficient experimental and clinical observations have been made to show that the function of reproduction is governed by the interdependent action of these three glands and probably a fourth pair, the suprarenal glands.

Evidence produced by Kuschinsky and others indicates that the secretion of the thyroid gland may, in a manner similar to estrin, control to some extent the activity of the anterior lobe of the pituitary gland. It has been supposed that secretion of the thyroid gland has no direct effect on the ovaries aside from control of oxidation. However, recent work by Fluhmann indicates that thyroid substance may inhibit the

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†The word hypothyroidism, as used in this paper, denotes a condition of low basal metabolic rate without myxedema.

effect of the gonad-stimulating hormone of the anterior lobe of the pituitary body and that this inhibition may be effected by direct action on the ovary rather than by indirect action through the pituitary gland.

During pregnancy the thyroid gland is stimulated to produce an increased amount of secretion. Various observers have estimated the accompanying increase in the rate of metabolism to be from 15 per cent to 25 per cent above normal. This increase in activity of the thyroid gland is not a condition of hyperthyroidism but indicates the response of the thyroid gland to the increased metabolic demands of maternal and fetal tissues. The curve of increased metabolism rises slowly to about the sixth month of pregnancy and then more abruptly. In fact, observations made by Hughes suggest that the rate of metabolism of many pregnant women remains below normal until after the fifth or sixth month of pregnancy.

Many women have a physiologically low rate of metabolism but in comparatively few instances is this associated with myxedema. Women with myxedema very rarely conceive. Those whose rate of metabolism is low, without myxedema, may have menstrual disturbances, may be relatively infertile or may have a tendency to abortion. Independently, Hughes and Bloss noted an increased incidence of physical abnormalities among babies born to mothers whose rates of metabolism were consistently below normal. Previously Williams had stated that dysfunction of the thyroid gland caused defective germ plasm and premature termination of pregnancy; if pregnancy continued, monstrosities occurred. Additional observations on this subject are highly desirable. Davis stated that low metabolic rates were not uncommon among women in the Milwaukee area and suggested that babies born to these women might in time suffer from thyroid deficiency if the mothers had not received medication with thyroid during pregnancy. Davis, among others, urged that medication with thyroid should be instituted prior to pregnancy in these cases, so that possible abortion or maldevelopment might be avoided. Litzenberg and Carey stated that a third of more than 130 women with low basal metabolic rates had menstrual difficulties. These and other physicians were frequently able to carry out successful treatment of habitual abortion by

giving thyroid extract to pregnant women with low basal metabolic rates. Treating patients having low basal metabolic rates without myxedema by means of desiccated thyroid only, Haines and I reported definite improvement of menstrual flow in 72 per cent of cases of "functional" amenorrhea, in 55 per cent of cases of oligomenorrhea and in 73 per cent of cases of menorrhagia. Many authors have reported successful treatment with similar medication of certain sterile women who also were in a condition of hypothyroidism. Nausea and vomiting of pregnancy are said by some observers to be more common among patients whose metabolic rates are low than among those whose rates are normal; others, including Davis and Falls, have noted that this condition usually is associated with a hyperactive condition of the thyroid gland. Observations at The Mayo Clinic indicate that either low or high rates of metabolism occasionally may be associated with hyperemesis.

The state of low basal rate unassociated with myxedema is not necessarily productive of symptoms. In fact, metabolic rates below the usual normal level are not uncommon and frequently are found in examination of several members of the same family. When the hypothyroid patient has symptoms of intolerance to cold, physical fatigue, and so forth, and especially if the individual gives a history of unexplainable infertility, spontaneous abortion or disturbances in the amount or regularity of the menses, the rate of metabolism may be elevated carefully by oral administration of thyroid substance. A successful procedure is administration of a standard product of desiccated thyroid in doses of 4 grains (0.24 gm.) daily for three or four days and then administration of 1 to 2 grains (0.065 to 0.12 gm.) daily. The dosage usually is regulated within two or three weeks by determinations of basal metabolic rate every five to seven days. Most patients with low rates of metabolism seem to feel best when the rate is elevated to about —5 or —8 per cent. After the rate has been stabilized, the dose usually may be continued indefinitely, although it is well to determine the rate at intervals of weeks or months.

As a preface to the discussion of diseases of the thyroid gland which may complicate pregnancy, I shall digress to review briefly

certain generally accepted hypotheses concerning physiologic function of the thyroid gland. I have stated previously that the thyrotropic hormone sustains the normal function of the thyroid gland, which is the production of thyroxin. However, sufficient thyroxin cannot be formed in a thyroid gland which lacks an adequate supply of iodine. When the supply of iodine is insufficient for the needs of the thyroid gland, work hypertrophy or hyperplasia occurs, the secretory processes are altered, colloid substance low in content of iodine is stored in excess of normal, and diffuse colloid goiter is the result. Colloid goiter, then, is not an indication of lowered function of the thyroid gland, but occurs when a functioning gland is not supplied with sufficient iodine to enable it to convert into thyroxin all of the secretion it has been stimulated to produce.

Iodine is found in sea water, in most ground water and in certain leafy vegetables, and the incidence of colloid goiter in a given region depends to a large extent on the amount of available iodine in the drinking water and vegetables. When the supply of iodine is particularly low, as in certain mountainous districts in Switzerland, a majority of the population will have colloid goiter. When the deficiency is not so marked, as in our Great Lakes region, the amount of ingested iodine may be adequate to supply the thyroid gland under ordinary conditions, but quite inadequate for the physiologic increase of metabolism which occurs at puberty, during pregnancy and sometimes during the menses and at the menopause. Under such conditions, and especially during pregnancy, colloid or simple goiter is prone to develop. These goiters may or may not subside following confinement, depending on adequacy of the supply of iodine. When this remains low the deposit of colloid does not subside, but, instead, increases in subsequent pregnancies.

The presence of colloid goiter indicates an inadequate supply of iodine but it is not an indication of a deficiency of the secretion of the thyroid gland. In cases of colloid goiter the production of thyroxin may or may not be adequate to maintain normal metabolism. When colloid goiter has been endemic for several generations, as it has been in certain regions of Switzerland, the thyroid gland loses its ability to func-

tion adequately and many persons who have colloid goiter or adenomatous goiter are also in a state of hypothyroidism.

The relation between colloid goiter and supply of iodine is a definite concern of the physician who is caring for pregnant women. If a woman has colloid goiter and the thyroid gland delivers to the general circulation an adequate amount of thyroxin, colloid goiter will not develop in the fetus providing there is sufficient iodine to supply the demand of its normally functioning thyroid gland. If the mother is in a state of hypothyroidism and has colloid goiter, the fetus is prone to develop disturbance of the thyroid, its gravity depending on the degree of maternal hypothyroidism and the inadequacy of the supply of iodine. Fetal thyroid disease may vary, under different conditions, from colloid goiter with adequate glandular function to the total lack of development and function of the thyroid that is found in the total cretin. Colloid goiter needs no treatment during pregnancy except administration of iodine. In regions where goiter is endemic, iodine may be supplied in the form of iodized salt which, according to Marine, should be in the proportion of 1 part of potassium iodide to 100,000 parts of sodium chloride. For adults, Means advised 1 drop of compound solution of iodine (Lugol's solution) per week.

In many cases of colloid goiter there appears in the thyroid gland adenomatous tissue, probably as a result of the sustained stimulation of the gland, together with unknown factors. Adenomas are not common in the newly formed colloid goiter, the goiter of adolescence, but they occur in increasing frequency among persons with colloid goiter as they grow older. In many large colloid goiters adenomas may be present in the gland but may be unnoticeable or difficult to detect. Observations indicate that preparations of iodine in other than minimal doses may cause the development of hyperthyroidism in cases of adenomatous goiter. Therefore, care must be exercised in administration of preparations of iodine to pregnant women who have large colloid goiters, especially when adenomas are known to be present.

Adenomatous nodules may be present in thyroid glands from which the excess of colloid has been absorbed. These adenomatous nodules are likely to remain quiescent

for years, but there is a tendency, on the average, fourteen years after the tumors first have been observed, for these nodules to be stimulated to produce an excessive amount of thyroxin, even though the remaining portion of the gland remains normal. There is about an even chance that this may occur in the course of pregnancy or that the woman may become pregnant when the adenomas are already hyperfunctioning. The course of hyperthyroidism associated with adenomatous goiter is usually progressively worse and, as might be expected, considerably more than half of all these patients became worse in the progress of pregnancy. Also, in some cases of large, multiple adenomas without hyperthyroidism, a hazard occurs owing to the pressure of substernal masses on the trachea. Because of the conditions mentioned above, and because the benefits of iodine in treatment of this condition are questionable, nearly all patients who have hyperfunctioning adenomas, and some of those who have large adenomas without hyperthyroidism, are advised to have the adenomas removed, unless pregnancy has progressed to within the last six weeks. Even in the last six weeks of pregnancy, in the presence of a metabolic rate of more than 50 per cent, which has been maintained for a considerable period, or in the presence of myocardial insufficiency or of dyspnea caused by pressure of the adenoma on the trachea, removal of the adenomas prior to delivery of the baby usually is the safest procedure.

The influence of pregnancy on the course of hyperthyroidism, and, conversely, the possible harmful effect of hyperthyroidism on the mother and fetus, have been subjects of considerable comment. In one series of cases, the symptoms of less than a third of all the patients who had exophthalmic goiter became worse in the course of pregnancy. It will be recalled that the course of exophthalmic goiter is subject to considerable fluctuation and that it is difficult to determine how much the course of these cases was influenced by pregnancy. Recently, experimental work by Bodansky and Duff, and by Danforth and Loumos, working independently, revealed that pregnant rats tolerated doses of thyroid extract which caused rapid loss of weight and death of nonpregnant controls. These findings suggest that pregnant women tolerate hy-

perthyroidism better than nonpregnant women. Few of these patients observed at The Mayo Clinic gave evidence of spontaneous improvement in the course of pregnancy; at least these experimental findings seem to coincide with the clinical observation of W. A. Plummer, Boothby and me that pregnancy did not render the control of exophthalmic goiter of increased difficulty.

Hyperthyroidism during pregnancy carries an increased fetal hazard which seems to be proportionate to the degree of hyperthyroidism. When the rate of metabolism rises unduly and the patient becomes seriously sick, abortions are more prone to occur. Among adequately treated patients whose hyperthyroidism is not too severe, the fetal risk is not appreciably greater than in the average pregnancy. Wallace and Bothe agreed with W. A. Plummer, Boothby and me when we stated that hyperthyroidism is practically never an indication for therapeutic abortion. Abortion does not cure hyperthyroidism. In mild cases interruption of pregnancy is unnecessary and in severe cases the probability of a thyroid crisis or subsequent infection following operative abortion outweighs any hypothetical benefit which might be derived from terminating pregnancy.

I have stated previously that hyperthyroidism resulting from adenomatous goiter is rarely controlled satisfactorily by administration of iodine and that the safest procedure is to remove the adenomatous tissue. On the contrary, the hyperthyroidism of exophthalmic goiter is partially controlled at least temporarily, by administration of iodine. In mild cases in which the hyperthyroidism is not well controlled, and in severe cases following temporary control, subtotal thyroidectomy is indicated.

The oral administration of compound solution of iodine in doses of 10 drops three times a day to pregnant women with exophthalmic goiter is ordinarily followed by distinct improvement and by a definitely lowered basal metabolic rate within two weeks. In some of the mild cases of exophthalmic goiter, especially those of recurring hyperthyroidism, within two weeks after commencing the use of iodine, a complete or nearly complete remission may follow. In such cases of rapid and marked remission the patient may be carried through pregnancy by medication with iodine. It is neces-

THE THYROID GLAND AND REPRODUCTION—MUSSEY

TABLE I. RESULTS OF TREATMENT: PREGNANCY AND HYPERTHYROIDISM

Treatment	Adenomatous goiter with hyperthyroidism 23 cases				Exophthalmic goiter 43 cases			
	Condition unknown	Cured or improved	Died	Total	Condition unknown	Cured or improved	Died	Total
Medical management		1	0	1				
Medication with iodine						11		11
Iodine and thyroidectomy† during pregnancy						27		27
Iodine during and thyroidectomy after pregnancy						2	1*	3
Thyroidectomy during pregnancy		19	0	19		2		2
Thyroidectomy after pregnancy		1	0	1				
Operation declined	2							
Total	2	21	0	23		42	1	43

*Case of spontaneous abortion, followed by iodine preparation and partial thyroidectomy; bronchopneumonia; died fifth day.

†Subtotal or partial thyroidectomy.

sary to observe these patients carefully and to take the metabolic rates occasionally as a flare-up of the disease often occurs in spite of the continued use of iodine. Except in selected cases in the last trimester of pregnancy, partial thyroidectomy should be performed if the exophthalmic goiter does not give evidence of complete or nearly complete remission within two weeks after treatment with iodine has been begun. The initial and often dramatic improvement may produce a false sense of security and lead to deferring operation to a less favorable period of pregnancy or to a time when iodine may fail to give as complete protection against postoperative reaction or irreparable damage to vital organs. There may be exceptions to this rule when other diseases complicate pregnancy.

The Results of Treatment

Ninety-three* cases of hyperthyroidism complicating pregnancy were observed at The Mayo Clinic from January 1, 1916, to December 31, 1937, inclusive; this number includes sixty-eight cases previously reported to have been encountered up to January 1, 1930, and twenty-five cases observed since then and not reported before. In 1923

H. S. Plummer added oral administration of iodine to the methods of treatment of exophthalmic goiter. Because the use of iodine in the treatment of exophthalmic goiter has made the management of this condition infinitely easier and safer, the twenty-seven cases of hyperthyroidism complicating pregnancy observed at the clinic prior to 1923 are not included in the present discussion of the results of treatment. This discussion, then, includes the results of treatment among sixty-six pregnant women with hyperthyroidism observed from January 1, 1923, up to January 1, 1938 (Table I); among these were forty-three cases with exophthalmic goiter and twenty-three cases with hyperfunctioning or "toxic" adenomas.

The outcome of pregnancy of fifty-seven of the sixty-six patients is known (Table II). Including two sets of twins, fifty-four living babies were born to fifty-seven women; two deaths were reported to have occurred among several prematurely born living infants, one following an operation for pyloric stenosis and one from a blood dyscrasia. There were two stillbirths, one after delivery by forceps and one following maternal influenza. Three abortions occurred; two abortions were spontaneous; in each the patient was seriously ill with exophthalmic goiter. In one case of hyperfunctioning adenomatous goiter a therapeutic abortion

*The eighty-three cases of hyperthyroidism reported in a recently submitted review did not include those observed in 1937.

TABLE II. OUTCOME OF PREGNANCY: 23 CASES OF ADENOMATOUS GOITER WITH HYPER-THYROIDISM; 43 CASES OF EXOPHTHALMIC GOITER*

Result	Pregnancies
Unknown	9
Abortions spontaneous	2
Abortions therapeutic	1
Child or children born alive and lived	52†
Child born alive and died	2
Stillbirths	2
Total	68

*Does not include cases of hyperthyroidism observed prior to 1923.

†Includes 2 pregnancies which resulted in birth of twins.

was performed because of a large diaphragmatic hernia complicated by severe anemia.

Partial thyroidectomy was performed in the course of pregnancy in nineteen of twenty-three cases of adenomatous goiter with hyperthyroidism; this operation was performed in one such case following therapeutic abortion; two patients declined operation and one patient was carried through pregnancy on medical management. In twenty-nine of the forty-three cases of exophthalmic goiter partial thyroidectomy was performed in the course of pregnancy. Operation on all but two of these patients followed administration of iodine; these two patients were treated before iodine was used as a routine in the treatment of exophthalmic goiter. In fourteen cases of exophthalmic goiter, in four of which the condition had recurred, treatment with iodine was given in the course of pregnancy. In eleven of these fourteen cases mild symptoms appeared to be controlled by iodine after delivery. In three cases it was necessary to perform partial thyroidectomy after termination of pregnancy; one of these patients died. While a hyperthyroid crisis was in progress, she miscarried after a pregnancy of twelve weeks. After adequate preoperative administration of compound solution of iodine, partial thyroidectomy was performed; the patient died of bronchopneumonia on the fifth postoperative day. There were no other deaths among the ninety-three pregnant women with hyperthyroidism who were observed at The Mayo Clinic

from January 1, 1916, up to January 1, 1938.

Comment

The function of reproduction is governed by the interdependent action of the ovaries, the pituitary body, the thyroid gland and, probably, the suprarenal glands.

Functional as well as pathologic changes in the thyroid gland may be accompanied by disturbances of menstruation, relative infertility, abortion, and, perhaps, maldevelopment of the fetus.

A majority of women who have low basal metabolic rates without myxedema, accompanied by disturbances in the function of reproduction, are benefited by careful oral administration of desiccated thyroid.

Colloid goiter occurs when a functioning thyroid gland is not supplied with sufficient iodine to enable it to convert into thyroxine all of the secretion it has been stimulated to produce. In regions where the supply of iodine is low, it is advisable to administer iodine to girls and women during periods of increased physiologic activity of the thyroid, such as occur during puberty and pregnancy, in order to prevent the development of colloid goiter.

Occasionally women with hyperthyroidism may become pregnant, or hyperthyroid conditions may develop among pregnant women. Among the ninety-three cases of hyperthyroidism complicating pregnancy there were few in which pregnancy seemed to be a factor responsible for the development of the hyperthyroid state. Both the maternal and fetal risk depend on the degree of hyperthyroidism. Prompt treatment of the hyperthyroid condition is indicated, rather than interruption of pregnancy. The treatment of pregnant women with exophthalmic goiter or with hyperfunctioning adenomas, with rare exceptions, does not differ from treatment of nonpregnant women.

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A CASE OF HERPES ZOSTER OPHTHALMICUS

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Herpes zoster ophthalmicus is a disease involving the skin over the distribution of the first division of the trigeminal nerve. This disease is thought to be caused by a filterable virus. Hemorrhages and cellular exudates have been found in the sensory ganglia, and it is reported that the infection extends along the sensory nerves to the skin.

The onset of the disease is characterized by severe neuralgic pain over the affected area, followed in two or three days by the appearance of deep-seated vesicles on an erythematous base. The vesicles follow the skin distribution of the ophthalmic nerve, and the area involved usually does not spread. The vesicles contain a clear fluid, which later becomes turbid. They rupture and a brown crusting follows. When the crusts fall off, a permanent scar formation is seen. The course of the disease is usually three to six weeks. Neuralgic pains, anesthesia and paresthesias may persist for many months after the apparent healing of the herpes.

Complications of the disease occur in about 50 per cent of the cases. These complications are keratitis, scleritis, iridocyclitis, ocular palsies, and optic neuritis. True conjunctival lesions are rare, but, when seen, are usually located on the tarsus.

An idea of the efficacy of therapy can be gained from the array of cures that have been tried. These include: autohemotherapy, high-frequency current, deep x-ray radiation, ultra violet radiation, sodium iodide, arsphenamine, pituitrin, histamine, sulphanilimide, and vitamin B-1. Gifford, in his "Ocular Therapeutics," states: "In herpes zoster affecting the lids, the local lesions are practically unaffected by treatment, and can only be protected from secondary infection by a zinc oxide ointment or the calomine-zinc-oxide lotion." He feels that 0.5 to 1 c.c. of pituitrin, given once or

twice at forty-eight-hour intervals, gives relief of pain in many cases.

J. R. and B. F. Walker in the *Archives of Ophthalmology*, August, 1938, reported diphtheria antitoxin as being specific against herpes zoster. They have been employing it exclusively for the past twenty years. Five or ten thousand units were ordinarily given by the intramuscular route. Rarely, a third dose of 5,000 units was necessary. They report marked success, especially in intractable cases, where pain had persisted for several months. It was this article that prompted its trial on the following case:

Mrs. S. R., a white woman, aged fifty-six, was first seen in our clinic, November 28, 1938. She complained of severe pain in and about the left eye, associated with swelling of the lids, redness and blister formation. The present condition had started three days previously, with severe neuralgic pain over the left side of her head and forehead. The following morning she noticed a redness and swelling of her left eyelids, and frontal region. The shooting pains persisted, and the day before admission, blisters appeared.

Examination revealed redness, edema and vesicle formation over the left side of the forehead, extending up into the scalp, and also involving the eyelids and the dorsum of the nose. The picture was typical of an acute herpes zoster. There were many small active vesicles, as well as larger and coalescing groups. There was considerable photophobia and lacrimation of the left eye, which had

to be opened manually due to the edema. Retraction of the lids revealed injection of the conjunctival and episcleral vessels. There was a small corneal lesion about 3 mm. from the limbus superiorly, which was stained with fluorescein. The patient was admitted to the hospital November 28, 1938, and given 5,000 units of diphtheria antitoxin after a preliminary skin test for sensitivity with horse serum. No other therapy, ether local or systemic, was given. Twenty-four hours after receiving the antitoxin, there had been a marked diminution in pain, the tearing and photophobia had lessened, the cornea did not stain, and there were no new herpetic lesions.

In forty-eight hours, the herpetic lesions were healing rapidly, the edema of the lids and frontal region had almost entirely disappeared, and the patient could open her eye easily. Because of the fact that her neuralgic pains had not entirely disappeared, a second dose of 5,000 units of antitoxin was given, on November 30, 1938. During the succeeding three days of hospital stay, a gradual and progressive improvement was noted both objectively and symptomatically. She was discharged (on

December 3, 1938) with a prescription for calomine ointment to be applied to the healing herpetic lesions, morning and night.

She has been seen subsequently on weekly visits to the "Out-Patient Department." Her complaints have been limited to itching of the herpetic areas, and a feeling of numbness in the areas involved. At the present time there are a few superficial scars over the frontal region and the patient still has a feeling of numbness over this area.

Conclusion

A case of herpes zoster ophthalmicus was presented, which responded favorably to two 5,000 units intramuscular doses of diphtheria antitoxin. Obviously, no conclusions can be drawn from a single case. We feel that this treatment deserves further trial.

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SULFANILAMIDE*

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The introduction of prontosil by Domagk⁶¹ in 1935 ushered in a new era of chemotherapeutics. Its low solubility was a disadvantage which led to the synthesis of a derivative, neo-prontosil,[†] which could be given parenterally. It was soon discovered that both preparations were inert against hemolytic streptococci *in vitro* and that their effect *in vivo* was probably due chiefly to breakdown within the body to para-amino-benzene-sulfonamide.^{19, 43, 71, 157, 199} This drug, which has been Council-accepted under the name of sulfanilamide, has largely superseded prontosil because it is cheaper, easier to administer and more effective against most organisms. This review will, therefore, be devoted principally to sulfanilamide.

Absorption and Excretion

Sulfanilamide is almost completely absorbed from the gastro-intestinal tract of the dog within four hours¹⁴² and may then be recovered from the liver, spleen, lung, heart and skeletal muscle in concentrations equal to that in the blood.¹⁴⁴ The sulfanilamide level in skin and brain is slightly lower than that in the blood, whereas the level attained in bone and fat is only 25 to 50 per cent of that in the blood. In man, absorption and diffusion are equally prompt, as shown by the rapid rise in blood sulfanilamide and parallel changes in the spinal fluid level.¹⁴⁴ Sulfanilamide passes through the placenta readily and attains the same concentration in fetal blood as in maternal.^{15, 119, 188} Sulfanilamide is excreted almost

entirely through the kidneys.^{131, 143, 190} In hot weather, however, appreciable amounts may be diverted into the sweat.⁹³ It is excreted into breast milk in quantities too small to produce toxic symptoms in the average nursing infant.^{1, 189} The loss in the feces is negligible, even in diarrhea.¹⁹⁰ Sulfanilamide appears in the urine partly in the free state, and partly as an acetylated derivative, the proportion of the latter ranging from less than 10 per cent to more than 90 per cent of the total.¹³¹ This is significant in the treatment of urinary tract infections because the acetylated form is much less effective than free sulfanilamide. The rate of excretion depends upon the renal function and the fluid intake. In renal insufficiency, the drug may be retained and poisoning may result from doses that are ordinarily non-toxic. In normals, 50 to 75 per cent of a single massive dose is excreted in twenty-four hours; 90 per cent in forty-eight hours. When fluids are forced, the

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†Also known as prontosil soluble, prontosil solution.

drug is excreted more rapidly, making it difficult to maintain the blood sulfanilamide at the desired level. When fluids are withheld, the drug may be concentrated up to a point at which it precipitates in the urine, forming a nidus for a possible calculus.¹⁹⁰ A moderate fluid intake adjusted to provide a twenty-hour urine output of about one liter is indicated during sulfanilamide administration.

Mode of Action

After the addition of sulfanilamide to cultures of beta hemolytic streptococci in blood serum, the following effects have been demonstrated:^{21a, 75, 121, 208} (1) change in the staining reactions,⁷⁵ the microorganisms becoming pleomorphic and metachromatic; (2) interference with bacterial utilization of serum protein;¹²¹ (3) inhibition of bacterial multiplication;^{21a} (4) sterilization of the culture, provided that the inoculum was light,¹²¹ or that the incubation was carried out at elevated temperatures. White and Parker²⁰⁸ showed that sulfanilamide, added to cultures of B hemolytic streptococci in blood or peptone dextrose broth to make a concentration of 20 mg. per cent, was bactericidal when incubated at 104°F but merely bacteriostatic at temperatures of 98°-102°F. The action of sulfanilamide *in vitro* was not evident for at least three hours but became fully developed in approximately thirty hours. The effects of the drug *in vivo* are even more striking than in the test tube. A definite bacteriostatic and bactericidal action is also demonstrable *in vivo* but probably does not fully account for the remarkable therapeutic effects of the drug. The superior results *in vivo* may be due to the presence of phagocytes. In experimental B hemolytic streptococcal infections, phagocytosis is more pronounced in the animals treated with sulfanilamide than in untreated controls.^{21a} The phagocytosis occurring under sulfanilamide therapy is due to a direct effect upon the microorganism—not to increased production of leukocytes⁷⁵ nor to chemotaxis.⁴⁷ Lyons¹³² has shown that streptococci grown in media containing sulfanilamide become susceptible to phagocytosis and agglutination but regain their virulence if transplanted back to a medium free of the drug. Thus, the chief effect of sulfanilamide is to alter microorganisms in such a way that multiplication is retarded or

checked and susceptibility to bodily defense mechanisms is increased. Sulfanilamide is apparently inert against bacterial toxins^{38, 79, 162} with the possible exception of that derived from the gonococcus.³⁸

Method of Administration and Dosage

A.. *Oral*—the preferable route of administration. The dosage is dependent upon the severity of the infection. The following dosage scale has been in use at Detroit Receiving Hospital for one and one-half years:

1. *Large doses* are indicated when the patient is critically ill with an infection amenable to sulfanilamide, and are given to establish a blood sulfanilamide level of 10 to 15 mg. per cent. When large doses are employed, close observation for toxic symptoms and signs and daily hemoglobin estimations and white counts are obligatory. It is wise to be prepared to do a blood transfusion in the event of acute hemolytic anemia. The plan of treatment is as follows: An initial dose of 15 grains per 20 pounds body weight is given at once, patients over 160 pounds receiving the maximum dose of 120 grains. A similar total (15 grains per 20 pounds) is given during the next twenty-four hours, divided into six equal doses, the first given four hours after the initial massive dose, the remainder at intervals of four hours around the clock. The blood sulfanilamide level is checked daily. If it is between 10 and 15 mg. per cent, a total of 15 grains per 20 pounds, divided into six equal doses, is given during each subsequent twenty-four hour period until definite improvement occurs. The dose is cut in half after the temperature has been normal for twenty-four hours. If blood levels are maintained between 10 and 15 mg. per cent for five to seven days without definite clinical response, the case is classed as a therapeutic failure and the drug is stopped.* If the blood concentration is below 7 mg. per cent, rapid elimination or defective absorption is suspected and either the fluid intake is reduced, the dose increased or the subcutaneous route substituted. In children, an initial dose of one grain per pound body weight, followed by a similar amount every

*Larger doses sufficient to establish a blood level of 20 to 30 mg. per cent are being tried experimentally in pneumococcal meningitis and in bacterial endocarditis but are not recommended for routine use because of the danger of serious toxic manifestations.

twenty-four hours, divided into six equal doses, is necessary to establish adequate blood levels.

2. *Moderate doses* are indicated in patients bedridden but not critically ill with infections amenable to sulfanilamide. These doses should maintain a blood sulfanilamide level of 5 to 6 mg. per cent, which is sufficient in the less virulent infections. The risk of severe toxic manifestations is less than with full doses but close clinical observation is necessary and frequent blood counts are advisable. A total of 10 grains per 20 pounds body weight is given during each twenty-four-hour period until improvement occurs. The twenty-four-hour total is divided into five equal doses, which may be given at 8:00 A. M., noon, 4:00 P. M., 8:00 P. M., and midnight. As soon as definite clinical improvement occurs, the dose should be reduced. If no improvement is detectable within two days in an infection which should respond to sulfanilamide, the dose should be increased sufficiently to raise the blood level above 10 mg. per cent for another three to five days before abandoning the drug.

3. *Small doses* not to exceed 10 grains four times daily are advisable, if ambulatory patients be treated. The unpleasant side effects of the drug (headache, dizziness, lassitude, nausea, et cetera) are more pronounced in ambulatory than in bedridden cases.

B. *Subcutaneous* route is indicated when the patient is too ill to take or retain oral medication. The powdered drug may be purchased in sterile ampules to be added to sterile saline or to one-sixth molar sodium lactate solution in the proportion of 1 gram to 100 cc.c, warmed until completely dissolved and then injected subcutaneously at body temperature. Sodium lactate solution is the preferable vehicle since it combats acidosis. The initial dose is 100 c.c. per 20 pounds body weight with a maximum of 800 c.c.; subsequent doses of 40 c.c. per 20 pounds (maximum of 300 c.c.) are given every eight hours. Control of dosage by blood sulfanilamide determinations is highly desirable. Oral sulfanilamide should be substituted as soon as possible. The drug need not be given intravenously, since absorption

is so rapid and complete from the gastro-intestinal tract and from the subcutaneous tissue.

C. *Intraspinal* administration may be used to supplement oral sulfanilamide in meningitis. Spinal punctures may be done every twelve hours, the fluid slowly removed until the pressure reaches normal, then 0.8 to 1 per cent sulfanilamide solution may be introduced by gravity, giving 5 to 10 c.c. less than the quantity removed. Intrathecal injection is not obligatory in meningitis, since satisfactory concentrations of the drug in the spinal fluid may be attained through the oral or subcutaneous routes.

D. *Intrapleural—Intraperitoneal—Intra-articular.*—When purulent fluid containing organisms susceptible to sulfanilamide is removed from the pleural, peritoneal or synovial cavities, it may be partially replaced by 0.8 to 1 per cent sulfanilamide solution.

Other Medication

Accessory medication.—Sodium bicarbonate should be given along with sulfanilamide to prevent acidosis. Thirty to sixty grains of the alkali with the initial massive dose of sulfanilamide and 10 to 20 grains with each subsequent dose will usually suffice. Parenteral saline and glucose should be given when indicated but should not be deliberately forced because of the difficulty in maintaining adequate blood sulfanilamide levels. Blood transfusions should be given as often as needed. Specific sera should be used when available, since the combination of serum and drug is more effective than either alone.

Infections in Which Sulfanilamide Is of Proven Value

Beta hemolytic streptococcus.—Sulfanilamide seems of greatest value in rapidly-spreading infections, such as cellulitis and lymphangitis, where there is little tissue destruction.¹²² The superiority of chemotherapy is particularly notable in beta hemolytic streptococcal infections complicated by bacteremia. Mortality rates of 70 to 75 per cent occurred under the most skillful management prior to the introduction of sulfanilamide.^{110, 130} Keefer¹¹⁰ has collected fifty cases treated with sulfanilamide or its derivatives with 32 per cent deaths. With large

doses sufficient to keep the blood level between 10 and 15 mg. per cent, better results might be expected. Sulfanilamide may prevent the spread of streptococcal abscesses but seldom sterilizes them, surgical drainage being necessary for cure. The vulnerability of the organism in the blood stream and the resistance in an abscess cavity may be partly explained by Lockwood's observation¹²¹ that the beta hemolytic streptococcus in the presence of sulfanilamide is unable to utilize serum protein, but will multiply on peptone and other products of protein disintegration found in abscesses. *Meningitis.*—Additional striking clinical evidence of the efficacy of sulfanilamide against the beta hemolytic streptococcus lies in the results in meningitis due to that organism, a disease which formerly ended fatally in over 95 per cent of the cases. Schwentker¹⁷⁸ reported a mortality rate of 17.3 per cent among twenty-three cases treated in Baltimore, whereas Neal¹⁵³ has treated twenty-six cases with only 19.2 per cent deaths. More recoveries have been reported since the introduction of sulfanilamide than in all the preceding years. No doubt many recoveries are unrecorded, as, for example, the two which we have had at Receiving Hospital. *Erysipelas.*—Snodgrass and Anderson¹⁸⁶ compared the results in 135 cases of erysipelas treated with sulfanilamide with the results in a similar number of controls treated with ultraviolet light. The spread of the lesion was checked within twenty-four hours in 97 per cent of the former and 59 per cent of the latter whereas defervescence occurred within forty-eight hours in 75 and 47 per cent respectively. Toomey¹⁹⁴ reported a mortality rate of 4 per cent in infantile erysipelas treated with sulfanilamide, as compared with 13 per cent in the cases receiving antitoxin and 15.5 per cent in the controls. Many others have confirmed the reduction in mortality rate from erysipelas at the extremes of life and the shortening of the course of the disease in all age groups. *Puerperal infections.*—Colebrook and Purdie⁴⁴ reported a death rate of 8 per cent in 106 cases treated with sulfanilamide as compared with a mortality of 22.8 per cent in a previous series, treated in other ways. Their results with prontosil in a smaller series of cases were even better. Several oth-

ers have obtained excellent results with sulfanilamide in puerperal sepsis.^{27, 69, 76}

Miscellaneous.—Good responses to chemotherapy have been reported in a variety of beta hemolytic streptococcal infections^{22, 28, 31, 68, 73, 78, 82, 83, 102, 113, 114, 125, 136} including otitis media, cellulitis, pneumonia, empyema, brain abscess, endocarditis, pericarditis, peritonitis, arthritis, osteomyelitis, et cetera. But the number of cases is too small to be of statistical significance. In certain other infections due to beta hemolytic streptococcus the response is not so dramatic. Included in this category are tonsillitis, scarlet fever, and pyelonephritis. While good results have been reported in beta hemolytic streptococcal tonsillitis,¹⁸⁵ a disease which usually responds to symptomatic therapy, it is noteworthy that the drug often fails to eradicate the organism from tonsillar foci. Longcope¹³⁰ administered the drug to twelve patients with tonsillar foci for six to twenty-five days preoperatively in doses sufficient to produce blood levels of 7 to 19 mg. per cent, yet obtained a heavy growth of B. hemolytic streptococci from the excised tonsils of six cases. Hoyne and Bailey⁹⁹ failed to produce negative throat cultures in 79 per cent of 125 convalescents from scarlet fever who took 30 grains daily for one week. Sulfanilamide has no effect on the fever, toxemia or rash in moderately severe scarlet fever,^{97, 175, 206} an apparent paradox which may be explained by the fact that these symptoms are probably due to an exotoxin. However, it probably reduces the incidence of suppurative complications,¹⁷⁵ and lowers the mortality in the severe cases with bacteremia.²⁰⁶ Sulfanilamide may fail completely in B. hemolytic streptococcal pyelonephritis.²¹ The most common strain to invade the urinary tract is streptococcus fecalis, which belongs to Lancefield group D and thus differs from the Lancefield A strain of hemolytic streptococcus responsible for most other human infections. *In vitro*, as well as *in vivo*, sulfanilamide is inactive against beta hemolytic streptococci of group D but effective against group A.

Meningococcus infections. Meningitis.—The excellent results obtained in experimental meningococcic infections in laboratory animals have been confirmed clinically. Among fifty-two cases of meningococcic

meningitis treated with sulfanilamide, Schwentker¹⁷⁸ lost only 15 per cent, whereas among a similar number of cases treated with serum there were 30 per cent deaths. Muraz¹⁵¹ reported a mortality rate of 10.7 per cent in 271 cases of epidemic meningitis treated with sulfanilamide as compared to a rate of 22.4 per cent in forty-nine cases treated with serum and 8.7 per cent in twenty-three cases under combined therapy. Waghelstein²⁰² reported mortality rates of 15.3 per cent in seventy-two cases receiving chemotherapy, 26.9 per cent in 368 cases treated with serum and 23.5 per cent in thirty-four cases under combined therapy. These reports, together with several others covering smaller series of cases,^{9, 62, 106, 209} have established a definite place for sulfanilamide in the treatment of meningococcic meningitis. Large doses of the drug are indicated. However, the best results will probably be obtained by using it in conjunction with serum.

Gonococcus infections. Gonorrhea.—The excellent results originally reported by Dees and Colston⁵⁶ have been repeatedly confirmed. Twelve series of 100 or more cases have been published to date.^{2, 5, 11, 30, 33, 42, 50, 100, 133, 138, 160, 171, 184, 201} "Clinical cures" were obtained in 75 per cent or more of the cases in each series. The criteria of cure were variable, but generally included complete symptomatic relief, disappearance of gonococci from smears and absence of relapse following provocative measures. Most of those who obtained good results administered 60 to 90 grains daily for one to seven days followed by 30 to 40 grains daily for a total period of two to three weeks. In many instances, sulfanilamide was supplemented by local therapy or vaccine. The drug is effective in both acute and chronic gonorrhea. The results, however, are more spectacular in chronic cases. Cokkinis and McElligott,^{42, 133} who have treated over 1,000 cases, found that their results were much better when sulfanilamide was withheld until the second week of the disease than when it was commenced in the first week. Complications such as prostatitis and epididymitis generally respond to the drug. The results with sulfanilamide in acute and subacute gonorrhea in the female adult are comparable to those in the male.^{6, 139, 161, 180} Brief hospitalization is advisable and doses

similar to those used in the male are necessary. Sulfanilamide failures occur, however, in both sexes and in all stages of gonorrhea. Most of the failures may be attributed either to starting the drug too early in the course of the disease, to insufficient dosage at the outset (less than 60 grains daily during the first two to five days) or to toxic symptoms. The number of failures might be reduced considerably if the patient could be kept in bed during the first few days of treatment. Such unpleasant toxic symptoms as headache, mental confusion, dizziness, et cetera, are much less annoying in bedridden than in ambulatory patients. What may be accomplished under controlled conditions is exemplified by the results of Townsend and Mulcahy.¹⁹⁷ They administered the drug in doses of 20 grains every four hours for five to ten days to eighty-two prisoners with gonorrhea and obtained cures that withstood provocative tests in eighty-one. *Vulvovaginitis.*—Sulfanilamide exhibits some therapeutic action in gonococcal vulvovaginitis,⁹⁵ but is less effective than estrogenic hormone.^{98, 192} *Meningitis.*—Two recoveries from gonococcal meningitis have been reported following sulfanilamide therapy.^{25, 146} *Conjunctivitis.*—Sulfanilamide is much more effective in gonorrheal ophthalmia than any other form of therapy. Corneal scarring may be prevented and the vision saved if the drug is administered promptly. Over fifty cases have been reported to date,^{65, 150, 154, 203, 210} practically all of whom made spectacular recoveries following sulfanilamide. *Arthritis.*—Dramatic results have been reported in gonorrheal arthritis.^{46, 183} At Detroit Receiving Hospital, seventeen such cases have been treated with sulfanilamide. Two were complete failures. One patient had had arthritis for four months and showed roentgenographic evidence of destructive changes in the joints before the drug was started. Sulfanilamide was given in sufficient dosage to keep the blood level between 10 and 15 mg. per cent for ten days but no improvement occurred. The other failure occurred in a patient who received the drug for eight days in doses which kept the blood level between 4 and 5 mg. per cent. We have since learned that blood concentrations below 5 mg. per cent are inadequate in gonorrheal arthritis. Two patients, who had shown no improvement during periods of three and

five days, respectively, when the blood levels were below 5 mg. per cent, recovered dramatically after the doses were increased sufficiently to raise the blood levels above 9 mg. per cent. Because of this experience, "large" doses are now being used at the outset. The other thirteen patients recovered completely from the arthritis. The pain disappeared promptly and the temperature usually reached normal within forty-eight hours. The swelling gradually disappeared and a normal range of motion was restored. One of those who recovered completely from the arthritis still had a positive prostatic smear. The remainder were negative bacteriologically.

Bacillary infections of the urinary tract.

—Sulfanilamide has proven effective against *B. Coli*, *Proteus ammoniæ* and *Aërobacter aërogenes* infections of the urinary tract.⁴¹

^{48, 53, 91, 92, 112, 126} The results depend upon whether or not the infection is complicated by other pathology in the urinary tract. Cook and Buchtel obtained sterile urines in sixty-four out of seventy uncomplicated bacillary infections, in fifty-two out of sixty-two complicated by prostatitis and in twenty-two out of fifty-eight cases complicated by stone, obstruction, cicatrix, et cetera. The efficiency of the drug depends upon the reaction of the urine and the concentration of free sulfanilamide attained. Since sulfanilamide is more effective in an alkaline urine, it is advisable to administer enough sodium bicarbonate to keep the urine slightly alkaline. Usually, 10 to 15 grains with each dose of sulfanilamide will suffice. While concentrations of free sulfanilamide as low as 25 to 40 mg. per cent are active in an alkaline urine, the optimum level is in the neighborhood of 200-300 mg. per cent. It is important that the free rather than the total sulfanilamide concentration be measured, because the acetylated derivative is less active therapeutically. A satisfactory concentration may be attained with a dose of 15 to 20 grains five times daily, provided that renal function is normal and fluids are restricted to 1200-1500 c.c. daily. It is our practice to begin with the foregoing doses as soon as the causative organism has been identified as one which is amenable to sulfanilamide. The temperature usually falls to normal and the urinary symptoms generally disappear promptly whereas the

pyuria clears up in a few days. In our experience, however, sulfanilamide frequently fails to sterilize the urine. Since prolonged administration increases the incidence of toxic symptoms, it is advisable to discontinue sulfanilamide and sodium bicarbonate after five to seven days and to substitute mandelic acid and ammonium chloride in doses sufficient to lower the Ph below 5.5. When infection is due to *Proteus ammonii*, it is impossible to obtain satisfactory urinary acidity. In the presence of renal insufficiency, both drugs are usually ineffective and may be dangerous. If sulfanilamide is given under such circumstances, daily determinations of the blood level are obligatory.

**Infections in Which Sulfanilamide
Is of Probable Value**

Chancroid.—Practically all of the ninety-three cases reported to date responded dramatically to sulfanilamide.^{16, 66, 87, 103, 116} Good results were obtained with local application as well as with oral administration. Ulcers which had been present for weeks or months healed completely within one to two weeks and many buboes receded without surgical drainage.

Lymphogranuloma venereum is the only virus infection thus far studied in the experimental animal that has responded to sulfanilamide. Reports of clinical cures are appearing in the literature.^{77, 86, 167, 181, 182} To a group of twenty-two ambulatory females, the largest published to date, Shaffer¹⁸¹ administered small doses for one to two months and obtained "cures" in four and marked improvement in eleven. With larger doses over a period of ten to twelve days, Hamilton⁸⁶ obtained complete healing in thirteen out of fifteen male patients.

Trachoma.—In a series of 140 cases Loe¹²³ reported symptomatic improvement within twenty-four hours, followed later by paling of the conjunctiva, flattening of granules and follicles, disappearance of pannus and restoration of vision. Kirk¹¹⁵ has confirmed these findings in a series of twenty-five cases.

Undulant fever.—Dalrymple-Champneys⁵⁴ obtained good results with sulfanilamide in ten out of seventeen cases of undulant fe-

ver. Newman¹⁵⁵ reported that prontosil shortened the course of the disease in fifteen out of sixteen cases. Welch²⁰⁴ studied the effect of sulfanilamide upon the opsonic index toward brucella in five cases of undulant fever and in six patients with other infections. A marked increase in phagocytic activity followed sulfanilamide therapy in the patients with undulant fever, whereas no change occurred in the controls. These findings suggest that sulfanilamide may be of diagnostic as well as of therapeutic value in brucellosis. There are nineteen other articles in the literature reporting a total of thirty cases that responded to sulfanilamide or prontosil.

Pneumococcus infections. Pneumonia.—Encouraging results have been reported in type III pneumonia. Heintzelman, Hadley and Mellon⁹⁰ treated nine cases, with but two deaths resulting. Mellon¹⁴⁹ subsequently reported a total of sixteen cases with only two deaths, and mentioned that Bullowa had treated ten cases of type III pneumonia with two fatalities. Sadusk¹⁷⁴ treated nine cases without a loss. Sulfanilamide has probably been used widely in other types of pneumococcal pneumonia but no series large enough to evaluate the drug has been published to date. Reddick¹⁷⁰ treated a total of forty-six cases of pneumococcal pneumonia, including fourteen type I and ten type VII, and lost only three. Price and I have been using sulfanilamide in alternate cases of pneumococcal pneumonia at Receiving Hospital and have made a preliminary report¹⁶⁹ of our results in 115 cases treated with large doses of sulfanilamide, forty cases treated with Felton serum and ninety-four who received no specific therapy. The mortality rate was 15.7 per cent in the entire sulfanilamide group and 30.8 per cent in the controls. In fifty-seven cases of types I, II, V, VII and VIII pneumonia treated with sulfanilamide the mortality rate was 10.5 per cent; in forty cases of the same types treated with serum, it was 27.5 per cent. In twenty-one cases of pneumococcal bacteremia treated with sulfanilamide there were seven deaths; in twelve treated with serum there were six deaths; and in fifteen controls there were thirteen deaths.

Meningitis.—The best results in pneumococcal meningitis have been obtained by

Finland, Brown and Rauh⁶⁷ through the use of massive doses of sulfanilamide in conjunction with specific rabbit serum intravenously and followed by the injection of the patient's own serum intraspinally. Six out of the ten patients treated in this manner recovered. Neal¹⁵³ reported six recoveries among thirty-three patients treated with smaller doses of sulfanilamide supplemented by prontosil and serum. Allen, Mayer and Williams³ obtained three recoveries with sulfanilamide and spinal drainage. Ten additional recoveries have been reported in the literature. A type XX pneumococcal meningitis treated at Receiving Hospital recovered following sulfanilamide therapy. In a second case admitted with a frontal lobe abscess complicated by meningitis due to type III pneumococci, the spinal fluid became sterile and the cell count fell to normal under intensive chemotherapy. The abscess extended in spite of sulfanilamide and surgical drainage and eventually proved fatal.

Infections in Which Sulfanilamide Has Been Reported to Be of Value

Typhoid fever.—Six cases have been reported which appeared to improve following sulfanilamide or prontosil.^{14,59,88,179} A brother and sister, aged five and six, were admitted to Receiving Hospital during the first week of typhoid fever. The former served as a control while the latter received sulfanilamide in a dose of 1.0 to 1.5 grains per pound daily for nine days. This produced blood levels between 5.6 and 8.9 mg. per cent. The course of the disease was similar in the two children. The child who received sulfanilamide developed a typhoid bacilluria during treatment. The drug was thus of no value in this case.

Gas bacillus gangrene.—Sulfanilamide is bacteriostatic against *B. Welchii* in the experimental animal.^{21a} Sulfanilamide alone or in combination with prontosil has produced improvement within twelve to twenty-four hours in six cases of gas gangrene.^{24,72,111} These preliminary reports are sufficiently encouraging to justify a wider trial. At Receiving Hospital sulfanilamide has been used in three cases of gas gangrene, two of which recovered. The results were inconclusive, however, since serum, roentgen therapy and surgery were also employed.

Friedlander bacillus infection.—In a patient with a 17-year cough productive of sputum that repeatedly had shown Friedlander bacillus in pure culture, Brown²⁹ reported that the expectoration ceased entirely after sulfanilamide. He cited another case of Friedlander infection in which sulfanilamide caused a remarkable decrease in sputum. No therapeutic effects were demonstrable, however, in experimentally infected mice.⁸⁰

Bubonic plague.—Carman³⁶ reported that three out of six cases treated with prontosil died, whereas all nine controls succumbed to the infection.

Ulcerative colitis.—Collins⁴⁵ treated eleven cases of ulcerative colitis with sulfanilamide and obtained improvement in eight. Brown, Herrel and Bargaen²⁶ reported favorable results with neoprontosil in eight cases.

Actinomycosis.—Excellent results have been reported in two cases,¹⁶⁸ one of which was an abdominal actinomycosis refractory to other forms of treatment. We have used sulfanilamide in two cases of actinomycosis. A chronic ulcer of the lip, from which actinomyces was isolated, healed promptly and completely after sulfanilamide. The other patient had an extensive abdominal actinomycosis which proved refractory to large doses of the drug.

Malaria.—Three reports were published in 1937 of favorable results with the prontosils in malaria.^{57,94,200} Sulfanilamide, however, is of little or no value. Pakenham-Walsh¹⁶⁵ noted an increase in circulating parasites during sulfanilamide therapy and we have obtained similar results in two cases. A recent report⁸⁵ of four cases that were refractory to both prontosil and sulfanilamide throws some doubt upon the efficacy of the former.

Filaria.—One case of filarial lymphangitis is reported which was apparently aborted by sulfanilamide.⁵⁸

Infectious mononucleosis.—Sulfanilamide apparently shortened the course of two severe cases.¹⁰

Lupus erythematosus.—Satisfactory results were obtained with prontosil or sul-

fanilamide in nine out of twelve cases reported by four different authors.^{7,13,104,120}

Pemphigus.—Prompt remissions have occurred in three cases of pemphigus.^{37,118} These cases were not observed long enough to determine whether the remission was transient or permanent.

Infections in Which Sulfanilamide Is of Little or No Value

Staphylococcus.—Sulfanilamide is active against staphylococcic infections of the urinary tract, probably because of the high concentrations which may be obtained in the urine. Block and Pacella²³ reported a recovery from staphylococcal meningitis in a seventeen-day-old infant, treated with sulfanilamide. Nevertheless, sulfanilamide is usually ineffective against severe or widespread staphylococcic infections. Marcus¹⁴⁰ found that the drug had no effect on multiple staphylococcic infections of the skin, such as sycosis vulgaris, pustulous acne, et cetera. We have used large doses in staphylococcic septicemia, with negative results.

Streptococcus viridans and non-hemolyticus.—There is no convincing evidence that sulfanilamide is of value against these varieties of streptococci. The reported improvement in tonsillitis and other mild infections due to these organisms may have been spontaneous rather than due to the drug. The results in subacute bacterial endocarditis have been very disappointing. By raising the sulfanilamide level to between 20 and 30 mg. per cent we have sterilized the blood stream temporarily in bacterial endocarditis but have been unable to modify the uniformly fatal outcome. The drug is likewise of no value in rheumatic fever.^{147,191}

Virus infections.—Sulfanilamide is of no value in poliomyelitis^{176,195} and is ineffective against other neurotropic viruses.¹⁷³ It is also ineffective against the viruses of influenza and measles.^{81,158} It may, however, reduce the frequency and severity of bacterial complications such as bronchopneumonia and otitis media.¹⁹³

Pertussis.—Sulfanilamide does not appreciably alter the course of pertussis.¹⁹³

Syphilis.—Sulfanilamide is inert in rab-

bit syphilis³⁵ and should not be used in human syphilis.

Tuberculosis.—When guinea pigs are inoculated with tubercle bacilli and treated with sulfanilamide, retardation in the development of generalized tuberculosis is demonstrable^{34,172} but the disease is not eradicated. We have not been able to modify the course of miliary tuberculosis in humans with large doses of the drug. In pulmonary tuberculosis sulfanilamide is probably contraindicated.

Toxic Manifestations

Cerebral.—Headache, dizziness, lassitude, inability to concentrate, and slowed reaction time are frequent toxic manifestations. These symptoms are particularly troublesome in ambulatory patients. Because of the slowed reaction time, it is dangerous for anyone under sulfanilamide therapy to drive an automobile. Cerebral symptoms are seldom severe enough in bedridden patients to necessitate discontinuing the drug. Many of those taking the large doses outlined above become drowsy, a few become euphoric and an occasional person becomes delirious. Toxic psychosis has been reported.⁹⁶ Dogs given doses of .67 gm. per kilogram have developed spastic quadriplegia, blindness and apparent dementia as a result of cerebral edema.⁵² Such serious cerebral manifestations have not been reported in man and do not occur in animals receiving amounts comparable to the therapeutic doses in man. The cerebral symptoms observed in man generally clear up promptly after the drug has been discontinued. One case, however, developed transient cyanosis, confusion and negativism on two separate occasions, each 4 days after the last dose of sulfanilamide.⁵⁵

Gastro-intestinal.—Anorexia and nausea are common toxic manifestations. Nevertheless, the drug is generally retained when administered orally, vomiting being infrequent. Vague epigastric distress is not uncommon and diarrhea occurs rarely.

Diminished spermatogenesis has been noted during sulfanilamide therapy.^{12,105} There is generally a return to normal after the drug is stopped.

Cyanosis is a constant finding in patients receiving large doses of sulfanilamide. There is as yet no general agreement as to the cause of the cyanosis. Hartmann⁸⁹ has demonstrated methemoglobin by spectroscope in every case of sulfanilamide cyanosis which he studied, and, like Wendel,²⁰⁵ has been able to reduce the methemoglobin concentration and abolish the cyanosis with methylene blue, injected intravenously in a dose of 1 to 2 mg. per kg. Sulfhemoglobinemia may occur when cathartics, particularly magnesium sulfate, are given along with sulfanilamide,^{60,166} but is rare when purging is avoided. Others^{39,145} have been unable to demonstrate either hemoglobin derivative in the majority of the cases exhibiting cyanosis, and have suggested that the discoloration may be due to an aniline pigment. Ottenberg and Fox¹⁶³ have shown that sulfanilamide solutions become violet after brief exposure to ultraviolet light and that erythrocytes, when added to such solutions, absorb the pigment, assuming a color similar to that of the red cells of patients under sulfanilamide therapy. Whether due to methemoglobin or pigmentation, cyanosis is not a serious complication. It is not necessary to discontinue the drug or even to modify the dosage in the presence of cyanosis. Even in pneumonia, we have observed no deleterious effects attributable to sulfanilamide cyanosis.

Acidosis.—When sulfanilamide is administered without alkali the blood carbon dioxide combining power usually falls and clinical acidosis may develop.^{187,198} This may be prevented by giving sodium bicarbonate or sodium lactate with each dose of sulfanilamide.

Fever is frequently induced by sulfanilamide therapy, developing in 9 per cent of a series of 307 adults treated by Long¹²⁸ and in 15.6 per cent of the cases reported by Hageman and Blake.⁸⁴ The elevation in temperature is usually moderate but may reach 106°F.¹⁰¹ The importance of fever lies in the fact that it is a forerunner of the more serious toxic manifestations such as dermatitis, hepatitis, hemolytic anemia and agranulocytosis. Long noted that practically all of the cases who developed serious therapeutic complications showed an early febrile response, and advised withdrawal of

the drug when fever is produced. This makes it necessary to distinguish between fever due to the drug and that due to the infection. Sulfanilamide fever most commonly develops between the fifth and tenth day of treatment and is usually preceded by one or more days of normal temperature. Whenever a secondary rise of temperature occurs during sulfanilamide administration, a careful search should be made for relapse of the infection. If the fever cannot be explained by the infection, the drug should be stopped and fluids forced. If sulfanilamide was responsible for the fever, the temperature should fall to normal within twenty-four to forty-eight hours of its withdrawal. Sulfanilamide fever may develop as early as the first day of treatment and thus become superimposed on the fever produced by the infection. Patients who show an early febrile response to the drug will usually develop a toxic dermatitis, which serves as a warning to stop the drug.

Dermatitis occurred in 1.6 per cent of the adults treated by Long,¹²⁸ and in 6.7 per cent of the cases reported by Hageman and Blake.⁸⁴ It is usually morbilliform in type but may be scarlatiniform, urticarial or purpuric. The dermatitis may be precipitated by exposure to sunlight or Alpine lamp and may be confined to the exposed portion of the body.¹⁵⁶ The rash usually fades within forty-eight to seventy-two hours of the withdrawal of the drug but occasionally becomes exfoliative and persists for weeks.¹⁵² Sulfanilamide should be stopped at the advent of the rash, because of the possibility of a protracted exfoliative dermatitis, and, even more, because the rash, like fever, is often a forerunner of the more serious toxic manifestations, such as hepatitis and the blood dyscrasias. If a patient has once had a dermatitis from sulfanilamide, one should be very cautious in administering the drug a second time. Salvin¹⁷⁷ reported a case who had originally developed a diffuse urticaria on the first day of therapy and subsequently had a recurrence after a single dose of one grain. A patient who was brought to Receiving Hospital with a diffuse scarlatiniform blush which had developed fifteen minutes after a ten-grain dose of sulfanilamide, stated that he had been cured of gonorrhea by the drug six months previously and that he had taken it intermittently

since then as a prophylactic. There were no untoward symptoms until the last previous dose, which had been followed by a mild transient skin eruption. How frequently, sensitivity will be acquired to sulfanilamide remains for the future to disclose.

Neuritis is an extremely rare toxic manifestation of sulfanilamide but is not uncommon after certain derivatives such as uliron. One case of optic neuritis has been reported which developed during sulfanilamide therapy and gradually cleared up after the drug was discontinued.³²

Jaundice is a common toxic symptom which necessitates immediate withdrawal of the drug. It is usually hemolytic in type and associated with a hemolytic anemia. Occasionally, it is due to a toxic hepatitis. Garvin⁷⁴ has collected five cases of sulfanilamide hepatitis from the literature and has reported five additional cases. In four of the latter, the jaundice appeared after the drug had been discontinued. One patient who had taken 500 grains during the first ten days in March without untoward effect, developed fever after a single ten grain dose on the sixteenth and again after a similar dose on the twenty-sixth. On the thirtieth, she developed jaundice which proved fatal. Cline⁴⁰ has reported an acute yellow atrophy following sulfanilamide.

Anemia is the commonest serious toxic manifestation of sulfanilamide. Acute hemolytic anemia developed in 4 per cent of a series of 522 patients treated in the Johns Hopkins Hospital²¹² and in 5.2 per cent of the 115 cases of pneumonia treated at Detroit Receiving Hospital.¹⁶⁹ In both series of cases the earliest signs of anemia appeared within twenty-four to seventy-two hours of the onset of medication. The earliest clinical sign was jaundice. This was accompanied by an elevated icteric index and an increased excretion of urobilin in the urine. In five out of our six cases, an abrupt neutrophilic leukocytosis occurred at the onset of the anemia. The hemoglobin had begun to fall at the onset of the jaundice and reached its lowest level within another twenty-four to seventy-two hours. In each of our cases the total fall in hemoglobin exceeded 4 gm. per cent and the total fall in red cells was in excess of 1,500,000

per cu. mm. Only one death has been reported from hemolytic anemia.²¹¹ If the drug is withdrawn at the onset of the anemia, fluids forced and transfusions given, recovery almost invariably occurs. Four out of five of Wood's patients who were given a second course of sulfanilamide after they had recovered from acute hemolytic anemia developed a recurrence. Whereas acute hemolytic anemia practically never develops after the first week of medication, a gradual and more moderate fall in hemoglobin and red cells is not uncommon. We have noted this in twenty-one cases of pneumonia treated with sulfanilamide. In twelve of these, the anemia appeared during the administration of sulfanilamide, and in the other nine, it developed after the drug was discontinued.

Granulocytopenia is a rare but serious complication of sulfanilamide therapy. Kracke¹¹⁷ has collected nine cases due to sulfanilamide and two due to its derivatives. Ten additional cases^{4, 8, 51, 107, 109, 127, 135, 137, 196} have been reported from sulfanilamide and two from sulfapyridine.^{49, 108} Two cases which occurred in the Detroit area have not as yet been reported. Practically all of those who developed granulocytopenia had taken the drug for two weeks or longer. If warning signs such as fever and dermatitis are heeded, there is little danger of agranulocytosis during the first ten days of therapy.

Sulfanilamide Derivatives

Prontosil and neoprontosil are less effective than sulfanilamide and consequently are being displaced more and more. Concerted efforts are being made to produce a derivative that is more efficient, yet, less toxic, than sulfanilamide. Uliron was introduced with the claim that it was more effective than sulfanilamide in gonorrhea but more extensive trial has shown that it is not only inferior therapeutically but also more toxic to the nervous system. Certain sulfones, particularly bis-p-acetylaminophenyl sulfone are superior to sulfanilamide in experimental streptococcal and pneumococcal infections in mice but appear to be too toxic in man.

The most promising derivative introduced to date is 2-(p-amino-phenylsulfonamido)-pyridine (sulfapyridine). Whitby²⁰⁷ reported that this compound was much more active than sulfanilamide in experimental

pneumococcal infections. His results were sufficiently encouraging to stimulate a wide clinical trial in pneumonia. Evans and Gaisford⁶³ reported a mortality rate of 8 per cent in 100 cases treated with sulfapyridine and a mortality rate of 27 per cent in 100 alternate controls. Their results are inconclusive, however, since the cases were not analyzed as to type of pneumococcus, duration before treatment, blood culture and extent of the pneumonia. Several other articles reporting good results in series of one to eight cases likewise do not permit a critical clinical evaluation of the drug in pneumonia. Three recoveries from staphylococcal septicemia^{64, 148, 159} have been reported following sulfapyridine. Three groups of workers,^{17, 124, 134} each of whom have used sulfapyridine in over 100 cases of gonorrhea, state that it is superior to sulfanilamide. In no other infections studied to date does sulfapyridine appear to possess an advantage over sulfanilamide. Sulfapyridine is absorbed from the gastro-intestinal tract more slowly and more irregularly than sulfanilamide, does not penetrate the spinal or pleural fluid in as high a concentration and is excreted more slowly and irregularly.¹²⁹ This makes sulfapyridine more difficult to administer and makes serious toxic manifestations more likely. Two cases of granulocytopenia have been reported already.^{49, 108} Marshall¹⁴¹ found that sulfapyridine was more toxic in mice than sulfanilamide and warned against using it in diseases in which sulfanilamide has been shown to be effective.

Requisites for Sulfanilamide Administration

Sulfanilamide is a very valuable drug when used intelligently but is dangerous when taken indiscriminately and without adequate supervision. The following are considered minimal requirements for rational sulfanilamide therapy: (1) identification of the infection as one which is amenable to sulfanilamide; (2) exclusion of contraindications. The drug is contraindicated if there was a history of jaundice, purpura, hemolytic anemia, granulocytopenia or neuritis following a previous course and should be used with extreme caution, if at all, after it has once produced fever or dermatitis; (3) daily clinical observation for toxic symptoms and signs; (4) daily hemoglobin

determinations during the first week and twice weekly thereafter; (5) white blood count every other day; (6) daily blood sulfanilamide determinations are obligatory in the presence of renal insufficiency and are desirable in all cases as a check on the adequacy of the dose.

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CAUSES OF CORONARY THROMBOSIS

Although overexertion and intense emotional stress appear to have no bearing on the coronary thrombosis attack itself, they are directly concerned in the primary causes of the condition leading up to the attack. Dr. J. C. Paterson, Regina, Sask., Canada, states in *The Journal of the American Medical Association* for March 11.

A coronary thrombus is a blood clot in an artery which shuts off the supply of blood to the heart. From autopsy studies, Dr. Paterson finds that the clot forms gradually, possibly taking several days before it completely obstructs the artery. Pointing out that it has been the common belief that overexertion or intense emotional stress has a direct

bearing on the fatal attack of coronary thrombosis, the doctor says his findings indicated such activities are merely coincidental.

Sudden and temporary increases in the blood pressure are commonly encountered in circumstances of unusual exertion and emotion. The autopsy appearance of the clots in coronary thrombosis in a series of fatal cases studied by the author strongly suggested to him that excessive exercise and emotional stress, with the accompanying rise in blood pressure, are intimately concerned in the production of coronary artery thrombosis but apparently have little relationship to the fatal attack, which may take place several days later.

ETIOLOGICAL FACTORS IN NON-INSTITUTIONAL PATIENTS WITH EPILEPSY*

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It is now a generally accepted fact that epilepsy cannot be considered as a unitary disease entity, but is on the contrary a symptom-complex accompanying a variety of conditions which directly or indirectly impair the integrated function of the central nervous system. Recognition of this fact has long been implied in the customary subdivision of epilepsy into certain broad clinical groups such as organic, toxic, circulatory, endocrine, reflex, and so on, while the term "idiopathic" has been reserved for the large group in which no cause can be found. In an elaboration of this approach to the problem of etiology, Stanley Cobb¹ enumerated as many as sixty pathologic states in which convulsions could occur, and on this basis postulated at least twelve physiologic mechanisms which could act as precipitating agents.

The purpose of the present paper is to report some of the major etiologic factors found on examination of 1,000 non-institutional epileptic patients, emphasis being placed on those contributing causes which can be determined by clinical procedures available in the present admittedly incomplete stage of our knowledge. The material was taken from the records of patients with seizures who were examined at the University Hospital at Ann Arbor during the eleven year period between 1924 and 1935. In addition to the routine neurological examination and a pediatric consultation for each child under twelve years, practically all of the cases had skull roentgenograms and spinal fluid examinations. Approximately ten per cent had additional cephalographic studies. In every case a definite diagnosis of grand or petit mal epilepsy had been made, syncope or hysterical unconsciousness having been excluded so far as this is clinically possible. A report on the hereditary factors in the family histories of these patients appeared in a previous publication in this JOURNAL.²

The group studied included 577 males and 423 females, of which 842 had typical grand mal attacks and the remaining 158 had petit mal attacks without accompanying major seizures. Although the group includes patients of all ages, the majority were children and young adults. The average age of onset of seizures for the series as a whole was 15.1, the males averaging 16.3

and the females 13.6 years. Attacks were present since birth in 108 of the patients, and began during the first three years of life in an additional ninety-five cases.

As shown in the accompanying table, the largest group, 64.7 per cent of the total, is comprised of individuals of normal intelligence in whom no definite cause for the attacks could be found. It will be seen that the relative proportion of patients falling in this classification is practically identical for the two types of attacks. Attacks were present since birth in 51 of the 647 patients in this subgroup.

Mental deficiency and deterioration occurred in 120 cases, eighty-two without and thirty-eight with clinical or cephalographic evidence of organic central nervous system defect, either congenital or acquired. The average age of onset of seizures for all of the patients presenting evidence of mental deficiency at the time they were examined was 6.3 years. The fourth item in the table refers to patients with various organic defects but with average or at least unimpaired intelligence. The post-traumatic cases, so far as these could be separated from the idiopathic, are somewhat arbitrarily composed of patients who gave a history of severe head injury accompanied by prolonged unconsciousness and followed by seizures within several years. Five cases of birth injury are included in this group. The sixth subgroup comprises those in whom convulsions accompanied or followed infectious or inflammatory processes such as meningitis, brain abscess, purulent encephalitis, et cetera. In nineteen of these cases residual states of epidemic encephalitis were considered definitely related to the attacks. Syphilis was the specific precipitating agent of attacks in twelve males and five females.

*From the Neurological Clinic of Dr. C. D. Camp, University of Michigan.

Seizures were attributed to brain tumor in twenty-one cases, and of these, sixteen were verified by operation. In thirty-six cases where seizures began in later adult years,

types of attacks have a common etiologic basis.

From this study it seems fairly conclusively shown that the greater the organic

Etiologic Factors	Average age of onset	Grand mal	Petit mal	Total cases
1. Idiopathic, with normal intelligence.....	14.0	540	107	647
2. Mental deficiency, without organic central nervous system defects	6.8	74	8	82
3. Mental deficiency with organic central nervous system defects*	5.0	34	4	38
4. Organic central nervous system defects*; normal intelligence	9.8	32	8	40
5. Cerebral trauma, including birth injury.....	17.8	72	10	82
6. Infections and inflammations of the central nervous system	11.6	27	10	37
7. Syphilis of the central nervous system.....	28.0	14	3	17
8. Vascular hypertension, arteriosclerosis or senility	51.2	30	6	36
9. Cerebral neoplasm	28.2	19	2	21
Totals		842	158	1,000

the onset appeared to be definitely associated with vascular hypertension, cerebral arteriosclerosis, or senile brain changes.

While a gross survey of this type brings out little on the whole that is significantly new, it does serve to emphasize again the variety of causes for which the convulsive syndrome represents but a dramatic symptom. In contrast to the findings for institutionalized epileptics, a definite degree of mental deficiency or deterioration was found in only 12 per cent of these patients. Although the relative number in the petit mal group is too small to give conclusive evidence, the parallel proportion of cases in each of the etiological subgroups adds weight to the prevailing belief that the two

and intellectual defect—whether or not this is or can be attributed to heredity—the earlier the convulsive symptom will make its appearance. While on the basis of routine clinical evaluation in approximately 60 per cent of the cases no cause other than a constitutional predisposition at this time can be brought forward, the fact must not be overlooked that in at least two out of five non-institutional epileptic patients an etiological basis can be determined with the use of ordinary clinical diagnostic criteria at present available. Such facts constitute convincing indication of the need for a more and more intensive approach with respect to basic etiologic elements.

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*Organic conditions under items 3 and 4 include congenital brain defects, cortical atrophy, internal hydrocephalus, Little's disease, porencephaly, spastic hemiplegia, and subarachnoid hemorrhage.

THE MARK OF A MAN

A sensible man does not brag . . . You shall not tell me that your commercial house, your partners, or yourself are of importance; you shall not tell me that you have learned to know men; you shall make me feel that; your saying so unsays it. You shall not enumerate your brilliant acquaintances nor tell me by their titles what books you have read. I am to infer that you keep good company by your better information and manners, and so infer your reading from the wealth and accuracy of your conversation . . . The mark of the man of the world is absence of pretensions. He does not make a speech, he takes a low business-tone, avoids all brag, is nobody, dresses plainly, promises not at all, performs much, speaks in monosyllables, hugs his fact. He calls his employment by its lowest name, and so takes from evil tongues their sharpest weapon . . . Men take each other's measure when they meet for the first time—and every time they meet . . . Men do not convince by their argument, but by their personality.—RALPH WALDO EMERSON.

EPILEPSY AS A PRISON PROBLEM*

Its Treatment with Sodium Diphenylhydantoinate

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A prison is an institution where behavior offenders are segregated for the protection of society. The primary function of the State, in its consideration of its delinquents and criminals, is to refit them for proper citizenship upon their return to community life. To accomplish this purpose, it is necessary to remove, so far as possible, those deficiencies and handicaps which may have significance in the prisoner's general physical or mental make-up, and which when eliminated will have a favorable influence upon his social readjustment. A prison is not a medical clinic but those of us entrusted with the physical and mental care of its inmates must evaluate the therapeutic measures that will most benefit the prisoner. In the discussion of epilepsy as a prison problem, we are not concerned with the many phases of the convulsive states, as etiology, pathology, classification of types, or whether it is an organic disease or a functional disorder. Our chief interest is what we can do to assist those individuals suffering from such a condition so that their ultimate release for acceptable community living may be considered.

For years, epileptics have proven to be a definite problem in our attempted programs of medical rehabilitation. As you all know, the rôle of a confirmed epileptic in life is unsatisfactory and unfavorable for proper adaptation. Epileptics are usually self-opinionated and possess a conceit and assurance out of all proportion to their achievements. They are moody, and have periods of laziness and lethargy, which alternate with outbursts of hastiness and pugnacity. They are difficult to live with and are often useless as workers. The majority are unable to adapt themselves to social conditions, and, in consequence become self-centered, morbid and unsocial. They gradually develop conduct that is characterized by such selfish instincts as insatiable sexual appetites and a desire for power, wealth, et cetera. During periods of acute confusional excitement or transitory delusional states, they are apt to commit acts of violence. Epileptics are definitely unable to adjust to such particular circumstances as periods of stress or disappointment. They, therefore, very readily demonstrate criminal traits and every prison population

includes a rather high percentage of these cases.

In prison, our epileptics are both custodial and behavior problems. This is a factor of the greatest importance so far as the institutional discipline and morale is concerned. Confined epileptics of the criminal type are generally obstreperous, uncooperative, insolent, and their actions are impulsive and reckless. They are often hypochondriacs and are chronic attenders of the morning sick-call. The medical officers, working in the criminal field, have for years been trying out every known remedy and method in their effort to combat this undesirable type of disorder.

Merritt and Putnam,² of the Neurological Institute of Boston and Harvard University, published in the Archives of Neurology and Psychiatry, an article on "A New Series of Anti-convulsant Drugs Tested by Experiments on Animals." Familiar with the experimental work of these men on the anti-convulsant properties of sodium diphenylhydantoinate, we started a clinical study nearly a year ago on a group of our epileptic prisoners at the State Prison of Southern Michigan.

The background of sodium diphenylhydantoinate is best illustrated by a brief summary of the preliminary work of Merritt and Putnam.² These workers developed a standardized method of causing convulsions in experimental animals. A cat was placed in a specially constructed box and a metal plate was attached to the animal's head and another inserted in the roof of the mouth. A measured and timed current was sent through these electrodes and by this means the "convulsion threshold" was determined.

*Read at Foote Memorial Hospital Staff Meeting, Jackson, Michigan on January 10, 1939.

Using this method, a large number of drugs, including phenyl, cresyl, sulfonates, ketones and esters of barbituric acid and hydantoin were then studied regarding their anti-convulsant property.

Sodium diphenylhydantoinate stood out prominently; compared to phenobarbital, it exhibited the same property of increasing the "convulsion threshold" but entirely lacked its hypnotic effect. The clinical application of the drug was then initiated, and Merritt and Putnam,³ in their article in the *Journal of the American Medical Association* on "Sodium Diphenylhydantoinate in the Treatment of Convulsive Disorders" reported that in grand mal epilepsy 58 per cent of 118 patients were completely relieved, and in 27 per cent the attacks were markedly reduced in number. In the remaining 15 per cent little or no improvement was noted over the previous status under treatment with bromides or phenobarbital.

Sodium diphenylhydantoinate, an odorless white or cream-colored powder with a bitter taste, is soluble in water and slightly soluble in alcohol. Aqueous solutions are alkaline to litmus. No extensive pharmacologic studies have been published but we are informed that large single doses and frequent small doses were well tolerated by laboratory animals. Dogs having received 0.8 gm. daily (ten to fourteen times the human dose) for a period up to six months, continued in normal health and weight. As yet, it has not been determined how the drug is excreted.

The general attitude of the confined criminal epileptic is not desirable. He is soon stigmatized by his fellow-inmates as an "actor" or a "twister." He knows that uncontrolled seizures prevent his release on parole. He is also aware of the crowded condition of the State institution for the treatment of epileptics and that it may be years before his transfer there can be effected. His situation appears rather hopeless. This status is immediately reflected in his behavior and the incentive for improving his attitude is lost. All of our cases would illustrate how this factor aggravates the problem, but the following two will serve as examples:

Case 1.—A thirty-year-old white man was sentenced for armed robbery. He has an I.Q. of 110, and was formerly a

skilled tailor. Following an accident at the age of 23 years, he began to have 10 to 20 grand mal type of seizures monthly. He was studied at several hospitals and was discharged with phenobarbital therapy although this did not effectively control his convulsions. He was unable to hold a position and resorted to criminal methods as a means of livelihood. He was a definite behavior problem to us. He would not work, was in frequent difficulty with the other prisoners, and the usual corrective measures produced no beneficial results. On the basis of time served, he would have been eligible for parole consideration in May, 1937, but as his seizures were not controlled, this negated his release, and his condition and attitude grew progressively worse. During March, 1938, he had 17 grand mal seizures, and 5 in April when the present treatment was established. Since then, a complete control of his convulsions has been secured; his personality appears to have undergone a complete metamorphosis, and he has ceased being a behavior problem. He is now working at his trade as a tailor and is content to remain in custody until such time as the medical authorities believe that he can satisfactorily be released.

Case 2.—A twenty-three-year-old negro man, with a low I.Q., and with a history of convulsive seizures since birth, is in prison for burglary with an extensive criminal record. He has also been a serious behavior problem since here as he is surly, irritable, morose, characteristically unreliable, and segregation from the general prison group has been necessary because of his assaultive tendencies. Before treatment, he averaged one to two seizures each night. Since beginning treatment in April, 1938, with complete cessation of his convulsions, he has become more alert, responsive and coöperative. He is in the general prison group and is employed.

Half of our group of patients were started on treatment in April, 1938, and the remainder in June, 1938. Each group was hospitalized for a control study for several weeks. Sodium diphenylhydantoinate was then started—0.1 gm. three times daily before meals. All cases, except one, were controlled on this regime. This one case continued to have infrequent grand mal attacks at night and the dosage in his case was increased to 0.4 gm. daily divided so that he

received an additional kapseal (0.1 gm) at eleven at night. With the additional drug, there have been no further convulsions.

In addition to the two cases commented on, we have 12 more patients on this treatment. None of our patients had obtained any benefit from phenobarbital in large doses. All have improved on sodium diphenylhydantoinate therapy in that convulsive seizures have ceased and behavior and attitudes have improved. As yet, there is no indication that the effectiveness of sodium diphenylhydantoinate is lost or diminishes with time as does phenobarbital. In our cases, we have been able to reduce the dosage, in some instances, to one kapseal (0.1 gm.) a day, whereas in phenobarbital treatment it was necessary to increase progressively the amount given. It is also of note that the depression, which characterizes patients taking large doses of phenobarbital, is noticeably absent with the use of sodium diphenylhydantoinate.

Merritt and Putnam² recorded that the children in their group of cases were much better behaved and would do better work in school; further that this improvement must have been due in a great part to the freedom from attacks. It is also possible that the medication produced other changes in the activity of the cerebral cortex. Even though our number of cases is small, and the percentage of success has been higher than that found in the larger series, we are in full accord with this statement. As previously mentioned, our cases had not been free of seizures while taking phenobarbital and several were markedly depressed by its hypnotic action. In my own experience, other remedies for the control of convulsive seizures have not been as successful as sodium diphenylhydantoinate. This is, of course, said advisedly as it is realized that any new treatment requires thousands of cases, and several years of study, before a final conclusion may be reached. A few comparisons may be drawn. Helmholz and Moe,¹ of the Mayo Clinic, in their article "Results of 15 years Experience with the Ketogenic Diet in the treatment of Epilepsy" found that 47 per cent of a total of 409 patients benefited with this diet. These cases were children and were all carefully controlled. Dietary control is impractical and almost impossible in prison practice.

Pollock,⁴ of Chicago, reported that final

remissions occurred in 35 of 96 cases, or 36 percent treated with sodium bromide. In patients suffering from grand mal attacks only, the attacks were stopped in 43 per cent. He also suggested that early treatment and few previous attacks lead to more prompt and continued remissions. All of the cases in our series had attacks for several years before coming under our observation, and several had secured no benefit from bromide therapy.

Merritt and Putnam report that toxic manifestations occur in about 15 per cent of patients following the administration of sodium diphenylhydantoinate. The most frequent complaints have been dizziness, ataxia, tremor, blurring of vision and slight nausea. Cutaneous manifestations as a scarletiform eruption have been seen which, however, have disappeared promptly when the drug was temporarily discontinued. No serious toxic effects have been noted on the blood. In some few patients, the gums have been swollen and tender, but this is apparently not related to the amount of the drug taken or the duration of treatment. In our series, not one patient has manifested any of these reactions.

As previously stated, our primary interest in the establishment of this clinical study, for prisoners demonstrating convulsive seizures, was the evaluation of some therapeutic measures which might benefit the individual to the degree that he could eventually be released to the community with some degree of safety. Hypnotic drugs which depress this type of patient to a still lower psychologic level provided a greater stumbling block to progress than did the epileptic seizures, and only aggravated the existing behavior problem. Sodium diphenylhydantoinate appears to offer a new hope of assistance in rehabilitation because of its ability to control seizures in a large percentage of patients with epilepsy, without a hypnotic effect. The patients under treatment, and the medical officers in their charge, are very gratified over the results obtained. This data is being submitted to you for your information, and with the suggestion that further study of sodium diphenylhydantoinate in this type of case be encouraged.

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DIVERTICULITIS WITH SPONTANEOUS INTERNAL EVACUATION OF THE ABSCESS*

Report of a Case

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The etiology, symptoms and treatment of diverticulosis and diverticulitis of the colon have been well covered in the last decade by many competent authors. In this brief report of a single case of diverticulitis we bring forth the question of treatment only, with special reference to abscess formation following perforation; and we demonstrate the mode of evacuation of the abscess following conservative treatment.

In the more recent literature we find a few previously accepted facts. The age is usually between forty and sixty years. Sex does not seem to be a factor. Obesity and constipation are usually present. There are many complications associated with diverticulitis, of which perforation with abscess formation is the most common. The use of surgery following these complications often ends in the formation of a fecal fistula.

Huston states,⁵ that a large percentage of the diverticula are in the sigmoid. Abscess is the most common complication because perforation is seldom into the free peritoneal cavity, the pre-existing inflammation usually fixing the sigmoid to loops of the small intestine or to the parietal peritoneum, or to the anterior abdominal wall. Rankin⁹ also concurs in this belief, and adds that one should operate in acute perforation, abscess formation, fistulae, inflammatory obstruction, and malignancy. He states that abscess formation is not an infrequent occurrence and one which demands surgical intervention. Regional anatomy has much to do with abscess formation being localized. The upper end of the sigmoid has a very short mesentery, and is covered by peritoneum, only on its anterior and lateral aspects, in ninety per cent of the cases. This anatomical arrangement favors perforation outwardly, the pus and feces burrowing between the bowel and ilium toward the pelvis.

Conway¹ also states: "Abscess formation is most common following perforation, and surgery is indicated in either perforation, obstruction, fistula formation, or abscess." In thirty-six cases he studied, the mortality

rate was twenty-seven per cent. Ellsworth⁴ and Synnott¹⁰ both sustain these views. W. J. Mayo,⁷ who gave us the first complete series, came to the conclusion early, that if an abscess forms it should be opened and drained, but a serious attempt should not be made at the primary operation to remove either the infected diverticula or the section of colon which contains them. Mayo,⁸ much later, substantiated his earlier belief when he stated—"If infection goes to abscess formation it should be evacuated, instead of waiting for spontaneous discharge, as the latter course tends to lead to the formation of fistula with its attendant evils." Eggers³ also believes that evidence of perforation, with abscess formation or peritonitis, is an indication for surgery. He stated that only diverticula in the sigmoid produced symptoms, and Lockhart⁶ in a series of forty-one cases found that thirty-six were in the sigmoid.

It may be seen from the above that it has been a generally accepted stand that, regardless of the fact that abscess formation following perforation is usually localized, and not free in the peritoneal cavity, surgery with drainage is usually resorted to. The mortality rate, however, is high, and a fecal fistula may be a resulting complication.

The following report illustrates what may occur when conservative treatment is instituted in a case of diverticulitis with abscess formation.

*From the Department of Surgery, Henry Ford Hospital, Detroit, Michigan.

Case Report

A fifty-two-year-old Greek insurance agent was admitted to the Henry Ford Hospital, September 7, 1935, complaining of abdominal pain.

History of present illness.—Two weeks before admission there was a sudden onset of acute gen-

associated with vomiting but he had no history of other symptoms referable to the gastro-intestinal tract.

Physical examination.—Examination revealed a middle-aged male lying comfortably in bed. The abdomen was soft, not distended, degree two ten-



Fig. 1



Fig. 1-A

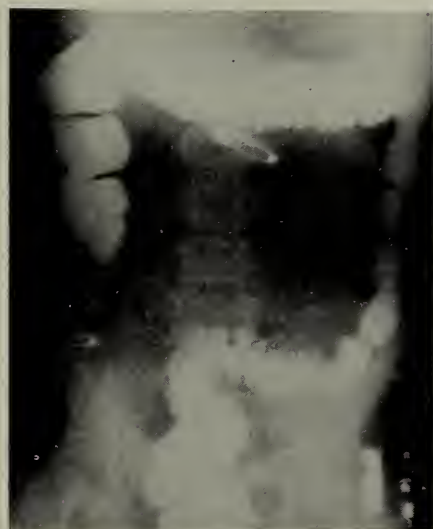


Fig. 2

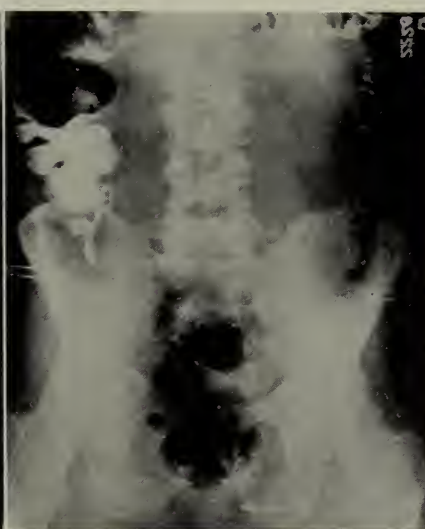


Fig. 2-A

eralized, abdominal pain which came shortly after taking food. The pain was quite severe, was accompanied by vomiting, and, though diffuse at first, settled in the left lower quadrant of the abdomen. The pain and vomiting persisted, and the following day he had fever and chills. These symptoms gradually subsided, but he remained in bed at home for five days. Subsequently, there was a continuous elevation of temperature with occasional chills, and recrudescence of the abdominal pain. One week after the onset, he passed a tarry stool; and on several occasions pus and mucus discharged from the rectum without much relief of the pain or distress.

History of past illness.—He had been subject to migraine for many years. The attacks were always

derness and spasm in the left lower quadrant, and a palpable mass in this area. Rectal examination was negative. T.P.R. 100°F-84-20. W.B.C. 25, 450, P.M.N. 82 per cent.

Diagnosis.—A diagnosis of diverticulitis with abscess formation was made. The passage of pus per rectum suggested that the abscess had ruptured back into the bowel, and was being evacuated in this manner.

Treatment.—Conservative, rather than operative, treatment seemed to be indicated. It consisted of liquid diet, repeated large doses of mineral oil, forced fluids and continuous hot fomentations. In addition, saline enemas were given three times a day, with the patient lying on the left side to promote gravity drainage.

Course.—Under this regime the patient's condition continued to improve and the mass in the left lower quadrant remained localized. Considerable quantities of mucous and pus were passed per rectum every day. After four days of treatment, the maximum temperature was 99.2°F. A barium enema was given and a contrast film was made. It showed many diverticula and a sinus tract which permitted the barium to pass from the lumen of the sigmoid and collect in a pocket near the iliac crest (Fig. 1 and Fig. 1-A). The following day, or five days after admission, the temperature became normal and remained at that level during the remaining ten days of hospitalization. A repeat barium enema and contrast film made nine days after the first showed spasticity of the colon with multiple diverticula, but the large pocket previously seen was not visualized at this time (Fig. 2 and Fig. 2-A). The patient was discharged from the hospital September 20, 1935, after fourteen days hospitalization. He was afebrile. The mass in the left lower quadrant had disappeared entirely.

After-History.—Four months later, a progress barium enema was done, but, except for persisting hypertonicity, the colon was negative (Fig. 3). In April, 1937, eighteen months after the attack, there was a mild exacerbation of the diverticulitis which responded favorably to four days hospitalization and routine conservative treatment.

Comment

This case of diverticulitis of the sigmoid colon with perforation and abscess formation presented an interesting study. The opportunity to actually visualize the mechanism of evacuation and resolution of the abscess was unique in our experience. On a number of occasions we have observed the complete disappearance from the left lower quadrant of a tumefaction due to diverticulitis but we have felt that the tumor was more of the nature of a phlegmon than of a true abscess formation. It is probable that in some of these instances internal evacuation of the abscess occurred. The possibility of such an eventuality indicates the value of conservative treatment in selected cases. Several factors may be pointed out as facilitating the recovery. One of the most important of these is the thorough daily flushing of the large bowel by repeated enemas attempting to aid drainage by this method. Drainage is further aided by the position of the patient and the use of gravity. A second important factor is the forcing of liquids and daily large doses of mineral oil attempting to soften any fecal masses in other diverticula, or near the site of perforation. The continuous application of fomentations to the abdomen is a recognized agent in the treatment of diverticulitis. Although

bismuth was not administered by mouth, it may have some benefit when used as an x-ray medium. It seems preferable to have the sacs and possibly the abscess cavity coated with a bland, non-toxic substance.



Fig. 3

rather than feces undergoing putrefaction. It is evident in this case that a well formed sinus tract allowed the pus to drain back into the lumen of the bowel, thereby emptying the abscess cavity, and favoring early resolution.

Summary

A case of diverticulitis with abscess formation treated conservatively is presented. The abscess ruptured into the sigmoid and was evacuated. A barium enema with contrast film permitted visualization of the abscess cavity and sinus tract leading into the sigmoid.

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CERVICITIS AS A CAUSE OF STERILITY, ABNORMAL BLEEDING, AND PELVIC PAIN*

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Inflammation of the uterine cervix is now generally recognized as a frequent cause of troublesome leukorrhea. Recently, considerable attention has also been directed towards its possible rôle in the etiology of carcinoma of the cervix. Emphasis on these outstanding points seems to have largely overshadowed other quite important effects of the condition. For instance, cervicitis may be a frequent and potent factor in sterility. It may also be a cause of abnormal vaginal bleeding as well as certain types of pelvic discomfort and pain.

The following study of fifty case histories from private practice is illustrative. These are records of patients whose cervicitis was treated for reasons other than the relief of leukorrhea or as a prophylactic measure against malignancy. In this sense they represent a series of consecutive cases. All were successfully treated by electro-cauterization. With only two exceptions, this was done as an office procedure, and without any kind of anesthesia for the most part. Many of these patients had extensive and marked involvement, and it is only fair to point out that the degree of success obtained is somewhat beyond usual expectations with cauterization. However, without going into a prolonged discussion of the relative advantages and disadvantages of other methods, it may be stated that cauterization being highly efficient, is sufficiently simple and so generally free of serious complications as to deserve, in my opinion, first place in the treatment of cervicitis. This is not to say that the technic can be acquired without experience or that the operation is free of all risk. It is definitely contraindicated in the presence of inflammatory disease since the pelvic condition may be made worse. Another danger, stenosis of the cervix, can occur but is a rarity provided care is taken to confine linear cauterization of the canal to the mucosal layer. Should deeper treatment be required, no more than one-half of the canal circumference should be cauterized at the first sitting.

Sterility

There were twenty-seven women with cervicitis who complained of sterility and who received no treatment other than cauterization for a period of at least six months after the first visit. Although these pa-

tients were advised to return for further treatment after six months, several delayed as long as one year.

TABLE I. RESULTS IN STERILITY PATIENTS WITH CERVICITIS

Treated by cauterization only, for at least six months		
Total patients	Became pregnant	No pregnancy
27	6	21

Table I indicates that sterility in six (22 per cent) of these patients was attributable to cervicitis. It is interesting to note that two successes were obtained in nulligravida. The twenty-one failures were later subjected to further investigation and treatment of both wife and husband, but only two of these women became pregnant so far as is known. However, the total of successes for the whole group (eight out of twenty-seven, or 34 per cent) is about as high as should be generally expected in a group of sterility patients. The interesting point is the important part played by cervicitis in these cases.

Bleeding

Abnormal bleeding in eleven patients was thought to be possibly due to cervicitis. All of these patients had marked cervicitis, but no cases of frank cervical polyps were included. In 5 the bleeding was in the nature of prolonged or excessive menstrual periods (menorrhagia), while in six the excessive bleeding occurred irregularly between as well as with menstruation (metrorrhagia). Results are given in Table II.

TABLE II. EFFECT ON ABNORMAL BLEEDING OF CAUTERIZATION FOR CERVICITIS

	Corrected	Little or no relief
Menorrhagia	2	3
Metrorrhagia	5	1
Totals	7	4

*From Harper Hospital, and the Division of Obstetrics and Gynecology, Wayne University.

The data tabulated indicate that one of the correctable causes of abnormal vaginal bleeding may be cervicitis. On the other hand, there were enough failures after cauterization to make it obvious that the condition may be present incidentally and not as a cause of bleeding. It is perhaps needless to mention that in all cases of cervicitis, malignancy should be ruled out, and this is especially important where there is bleeding. The least suspicion of carcinoma should demand the pathological examination of biopsy specimens, since other tests, such as Schiller's, are of little value in differentiating between inflammation and malignancy. In one instance, which might otherwise have been included in Table II, biopsy showed squamous cell carcinoma.

Descensus of the Uterus

In seven cases there was slight to moderate but still sufficient prolapse of the uterus to account for annoying, dragging backache and "bearing down" sensation when standing or walking. All of these patients had borne children, and there was marked cervicitis with edematous enlargement of the cervix to several times its usual size. Thorough cauterization reduced the size and hence probably the weight of the cervix, and presumably this was responsible for the fairly good symptomatic results shown in Table III.

TABLE III. CAUTERIZATION OF THE CERVIX FOR CERVICITIS IN PATIENTS WITH SYMPTOMS DUE TO SLIGHT OR MODERATE PROLAPSE OF THE UTERUS

Symptoms relieved	Greatly improved	Slight improvement
1	3	3

One of the patients with only slight improvement was operated on. The other two desired further pregnancies, and operative treatment was deferred. Inasmuch as any relief obtained in such cases is probably due simply to reduction in weight of the cervix and in no way remedies the underlying cause (relaxation), it is likely that those who were improved may require operation in later years. However, for those women in the child-bearing age or where for some other reason postponement of radical treatment is desired, cauterization would seem to be worthy of a trial.

Pain

Eight patients suffered with pelvic pain, backache, or both, for which no good explanation could be found other than possibly the cervicitis. On pelvic examination, these patients complained of tenderness and pain in the parametrium or in the region of the sacro-uterine ligaments, probably as a result of secondary involvement of these structures from the cervix. This resembles the so-called "pelvic toothache" spoken of by Curtis.

TABLE IV. PATIENTS WITH PELVIC PAIN OR BACKACHE

Results after cauterization for cervicitis		
Entirely relieved	Much improved	Little or no improvement
1	4	3

As indicated in Table IV, cauterization gave good results in a majority of instances. Relief in these cases was obtained within two to three months after the cervicitis was cleared up. Two of the three patients with insufficient improvement were operated on. One was found to have endometriosis of the ovary and uterus which required hysterectomy and salpingo-oophorectomy. In the other, the left ovary was prolapsed and adherent in the cul-de-sac. Release of adhesions with suspension of the ovary gave a satisfactory result.

It will be noted that the total of the cases tabulated in the foregoing paragraphs is three more than the fifty studied. These three had more than one complaint and were therefore listed in two tables. One patient had menorrhagia as well as prolapse symptoms and was relieved of both. Another had failed to become pregnant during a period of three years, and also complained of irregular bleeding. There was no effect so far as sterility was concerned, but bleeding was corrected. The third was relieved of dragging backache and "bearing down" sensation due to first degree descensus of the uterus but continued to have some intermittent left-sided pain with persistence of the tenderness in the parametrial region.

Summary

Inflammation of the uterine cervix often has other significance than its causal relationship to leukorrhea and malignancy. Of twenty-seven sterility patients with cervicitis, six became pregnant after cauterization

of the cervix as the only treatment. The same procedure corrected abnormal bleeding in seven out of eleven cases. Presumably through the reduction in size and weight of the cervix by cauterization, four out of seven patients with descensus of the uterus re-

ceived considerable relief of symptoms. Among eight patients with pelvic pain or backache, thought to be possibly due to cervicitis, there was partial or complete relief in five instances after cauterization of the cervix.

EXAMINING THE INTOXICATED DRIVER

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Driving under the influence of intoxicating liquor constitutes a legal problem of serious proportions today. It is the civic and professional duty of the physician to aid in stopping the drunken driver. It is not sufficient for a doctor to serve as a witness to severe intoxication; he must be qualified to detect slight deviations of the nervous system: motor, sensory, and mental; he should also include chemical tests for alcohol.

It is now well recognized that the man who is but slightly intoxicated is a greater traffic menace than the "drunk" in the older sense of the word. Cases will be shown illustrating this fact.

Published statistics vary as to the extent of drinking among drivers. The more careful the studies, the more drinkers reported. A study of 110 cases in Cuyahoga County, Ohio, by S. R. Gerber, revealed that 58.6 per cent of both drivers and pedestrians killed in accidents during 1936, excluding children under fifteen, had been drinking. In 45 per cent of the total number of cases, alcohol concentrations of more than 0.10 per cent in the body fluids were found. A blood-alcohol concentration of 0.10 per cent is used by Gerber as an intoxication borderline.

In the city of Grand Rapids, during 1938, there were 108 arrests for drunken driving. These people were all involved in accidents, traffic violations, or obviously faulty driving, and we have no estimate of the number of drinking drivers who escaped arrest.

The medical profession can aid materially in combating the menace of the alcoholic driver by improving standards of examination, thus obtaining competent and effective testimony. It is distinctly the impression of the writer that when the accused is confronted with the evidence produced by a proper examination he is more prone to plead guilty than when there is an absence of such evidence.

In some law-enforcing quarters the value of a medical examination is questioned, and as a substitute police officers are required to fill out a form quite similar to a medical

report, although they are allowed to call a physician at their discretion. The chief reasons for this arrangement are past experience with haphazard and incomplete medical examinations, resulting in unreliable testimony in court, and difficulty in obtaining a physician promptly.

No figures were found available for adequate direct comparison of results, as measured in terms of convictions, between cases examined and not examined by physicians. When one includes the intricacies of law-court procedures with a medical problem, it seems almost impossible to arrive at an effective statistical answer.

In Grand Rapids, nearly all the 108 cases in 1938 had medical examinations. Only fifteen of them also had blood alcohol or any chemical tests. Of the 108, seventeen were released because of insufficient evidence, and fifty-six of the remaining ninety-one (62 per cent) were fined.

An analysis has been attempted to compare the total number of cases fined for drunken driving during the year with those fined in a group of forty cases given a medical examination including a blood alcohol test by the writer. This group extended over a two-year period. It is of interest to note that during this time only three other prisoners refused examination as contrasted to the forty who consented. Of the forty examined, five were released, because of insufficient evidence for conviction. Thirty-

five were held, and twenty-six of the thirty-five were fined. If we are to speak in terms of percentage, twenty-six is approximately 74 per cent of thirty-five. Admitting that the number of cases is small, it may be of some interest to note that a greater proportion of the blood-tested drivers were fined.

Although the statistical proof of the superiority of physical examination plus chemical test over physical examination alone may be meagre, it is amply justifiable on scientific grounds, and is upheld vigorously by almost all recent writers on the subject.^{3, 5, 6, 8, 11} Objections to its legality have not arisen in my experience, because the consent of the accused is always obtained before witnesses. Refusal is so rare as to be unimportant.

In order that a physician may make a competent examination and render his opinion as to ability to drive, he should know how the courts decide the moot question of alcoholic intoxication. Reports of court definitions in various states,⁹ although they show wide variation, express a definite trend toward the attitude that slightly intoxicated drivers should be convicted. This report quotes Michigan courts as follows:

1. Intoxicated.

"When it is apparent that a person is under the influence of liquor, or when his manner is unusual or abnormal, and his inebriated condition is reflected in his walk or conversation, when his ordinary judgment and common sense are disturbed, or his usual will power is temporarily suspended, when these or similar symptoms result from the use of liquors, and are manifest, then, within the meaning of the statute, the person is intoxicated. It is not necessary that the person should be so-called 'dead drunk' or hopelessly intoxicated; it is enough that his senses are obviously destroyed or distracted by the use of intoxicating liquors."—*Lafler vs. Fisher*, 121 Michigan 60, 79 N.W. 934.

2. Under the influence of intoxicating liquor.

The Committee is unaware of any definition in a court decision.

With this legal attitude in mind, the physician should proceed with his examination, never failing to observe the following essentials:

1. Obtain permission of the accused to examine him, before witnesses, explaining that he, the physician, may have to testify as to the results of the examination.

2. Inquire and examine for any disease process present.

3. Perform a neurological examination

to discover any variation from normal in locomotion, stability, dexterity, and speed of reaction.

4. Make mental tests for orientation, memory, reaction time of thought, emotional disturbances.

5. Take specimen for a chemical test to prove presence and determine concentration of alcohol.

6. Keep a careful written record of all findings, in addition to police report.

Of the many neurological tests used for intoxication, experience has shown a few of great value, others almost useless. The pupillary reactions are utterly meaningless except to rule out tabes or other disease. The finger-to-nose test is seldom helpful—many subjects obviously intoxicated can do it admirably. Even the Romberg test is often negative when other evidence is sufficient to remove all doubt.

The first and most important test is the signature of the subject: When compared with his normal signature on his driver's license or other papers, it shows a high percentage of variation from normal, and it constitutes evidence as permanent and convincing as a moving picture.

The next important observation is the manner in which the subject performs normal actions, such as buttoning his clothes, which he does without thinking he is undergoing a test.

Tendon reflexes give us no help in deciding intoxication, any more than does a florid complexion. Both furnish the defending attorney a means of confusing witness and jury.

The ability to walk a straight line, turn and walk back on the same line constitutes a good test. However, many drunken drivers have been observed to stagger markedly when coming out of a cell, before the test is begun, and yet be able to walk the line. So, it is very important to observe the subject's actions aside from the actual examination.

One of the best tests is the ability to stand on one foot. It is rare that an intoxicated person can do it, but twenty successive men of all ages recently tested in this fashion during routine physical examination performed this test without difficulty.

It may be possible to devise oculomotor

tests, using one colored lens, for example. It is probable, however, that no matter what delicate tests are employed for intoxication, there will always be cases where some are negative while others are strongly positive.

A number of chemical tests have been used in Europe and America, studying the respired air, urine, saliva, blood, and spinal fluid. Schweisheimer¹² first reported blood-alcohol testing to determine intoxication. The blood alcohol test is apparently the nearest approach we have to the alcohol content of the brain at the time of the test. It has been shown experimentally to be very close to that of the brain,^{7,11} whereas the urinary alcohol may be and usually is 35 per cent higher than in the blood, and the lumbar spinal fluid is lower than blood- or brain-alcohol.

It makes little difference what test is used, but it may make a great deal of difference if *some* test is made. We may treat diabetes without any chemical tests, but no one would condone it on scientific grounds, and the additional legal factor is present in the alcohol problem.

It is frequently stated that chronic alcoholics have a tolerance for alcohol which enables them to consume larger quantities than a normal individual before they manifest symptoms of intoxication. This is only partially true. Kozelka, writing in the *Wisconsin Medical Journal* of November, 1935, quotes evidence of experimental work in animals proving that those habituated to alcohol absorbed and oxidized it more rapidly than normal animals. But (this is the important point) any animal, whether habituated to alcohol or not, demonstrated the same symptoms of intoxication at the various levels of blood alcohol. So the blood alcohol test is a reliable guide to intoxication at the time it is taken, regardless of whether the subject is a chronic alcoholic or an occasional drinker.

Authorities differ in establishing definite blood levels of alcohol as thresholds of intoxication, some placing the figure at 0.1 per cent, some at 0.15 per cent and others at 0.2 per cent. It is not probable that anyone will ever be able to prove a certain alcohol level as determining the lower limit of intoxication. It does seem safe to say that no one with a blood alcohol of over 0.2 per cent is capable of driving a car. None of the cases in the group of thirty-five with more

than 0.2 was considered sober enough to drive, and three under 0.2 (0.15, 0.15 and 0.18, respectively) were ordered held. The two with blood alcohol of 0.15 per cent pleaded guilty.

The blood alcohol test used in this series of cases was done with 1 c.c. of oxalated blood drawn from a vein (without using alcohol to clean the skin or to sterilize the needle or syringe). The blood is distilled in a water bath, the alcohol passing into 5 c.c. of a solution of potassium dichromate in 50 per cent sulphuric acid. The resulting acid color is compared with standards, giving a reading accurate within 0.02 per cent. This test is described by C. W. Muehlberger, Northwestern University, Chicago.

Evidence of intoxication must always depend chiefly on physical signs. No jury will ever accept chemical evidence alone, nor should they. It is to be clearly understood that the blood test is to prove that the man's disturbed faculties were disturbed by alcohol. But, first, it must be shown convincingly that his faculties were altered.

Several cases will be described where the blood alcohol test gave good confirmatory evidence.

Case 1.—C. H., male, aged forty-three. Signature—large, scrawling. Attitude—slightly antagonistic to examination, but agrees. Eyes—react normally. Dexterity—slightly retarded in buttoning clothing. Heart—normal, pulse 136, BP 170/110. Breath—alcoholic. Reflexes—normal. Station—sways slightly in Romberg. One-foot—fair on right, topples on left. Finger-to-Nose—done quickly, and finger touches nose. Gait—deviates from straight line several times; walks too fast. Number Memory—misses first group entirely, repeats second and third. Speech—normal. Blood alcohol—0.3 per cent.

This man and his friends were highly indignant over the decision to hold him for drunken driving. In this case the decision was delayed until the chemical test was finished, a matter of about thirty minutes. The following morning he pleaded guilty.

Case 2.—L. N., male, aged forty. Signature—irregular, but legible. Attitude—coöperative. Eyes—normal. Dexterity—not markedly abnormal. Heart—normal, pulse 100 BP 140/80. Reflexes—absent knee jerks. Station—sways slightly in Romberg. Gait—staggers slightly. Breath—alcoholic. Blood alcohol—0.15 per cent.

Here, the evidence was somewhat scanty. It was fairly obvious that he was not normal; it might not be easy to convince a court that he was not. So he was allowed to start his car. The officers were to observe his driving. Their observation was brief, however, as he ran his car against a wall twice in attempting to leave the station. He was held and pleaded guilty later.

Case 3.—H. W., male, aged thirty-eight. Blood alcohol—0.35 per cent. Examined by another physician.

This driver was injured slightly on one knee. He pleaded not guilty and had a jury trial. The defending attorney attempted to nullify the physical evi-

dence of intoxication on the ground of injury to the knee, but was not able to question the validity of the blood alcohol test. The defendant was convicted.

Case 4.—W. D., male, aged fifty.

The examination in this case was not accurately recorded. He stated he was unable to write, so no handwriting was obtained. However, he talked in a confused fashion, his speech was blurred, and he staggered slightly. His blood alcohol test was 0.43 per cent. This evidence was introduced in court, and yet the jury acquitted him. It was a second-offense case.

Fortunately, the fourth case is an exception, and is only presented to show that jury trials can result in gross error.

Summary

1. Drunken driving is a medico-legal problem.
2. A high percentage of traffic accidents are caused by alcohol.
3. The number of drivers fined is slightly higher if blood alcohol test is made.

4. Suggestions are made as to method of examining for intoxication.

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SPECTACULAR RESPONSE OF ACUTE GONORRHEA TO LARGE DOSES OF SULFANILAMIDE

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The following case is reported for two reasons: First, because of spectacular response; second, because of the stimulus it gives to thought of the very likely possibility of better and more uniform results from larger doses than have generally been used.

The literature indicates that the more consistently good results are obtained by those men using the larger doses. I believe it is this wide variability of dosage which has given rise to the marked disparity in reported results.

B. E., a white, American, married man, aged thirty-seven, presented himself complaining of urethral discharge and burning, admitting extra-

marital contact eight days previously. Examination revealed the characteristic reddened, pouting meatus with very copious creamy-yellow discharge. Smear showed large numbers of Gram-negative, intracellular diplococci. The patient was put on sulfanilamide (no other treatment) and told to return the following day. He returned twenty-two hours later, having taken, partially by mistake, 140 grains of sulfanilamide. He was slightly cyanotic, a bit nauseated, and felt (as he put it) "generally miserable," no evidence of other toxic symptoms. Examination at this time revealed tenderness of the anterior urethra; *but absolutely no discharge* either on inspection or stripping.

He was instructed to decrease his dosage to 60 grains daily for four days, then 40 grains daily for another week, which he did. There was never any recurrence of signs or symptoms, and seven months later the patient remains subjectively and objectively cured.

DEPARTMENT OF INTERNAL MEDICINE
UNIVERSITY HOSPITAL, ANN ARBOR
STAFF CONFERENCE

R. B., a white laborer, aged twenty, was admitted to the University Hospital on February 21, 1939, complaining of pain in the left knee, low back and both heels. He had been well until about four months prior to his admission when he began having a watery urethral discharge. This was examined by his physician but the patient did not know if gonorrheal organisms were found. He received urethral instillations and for four days oral medication (tablets), which made his "lips slightly blue," was given. The urethral discharge stopped after a few days but recurred a week later, for one day only, at which time it was purulent in character.

One month after the onset of his illness, pain and swelling of the left knee developed and shortly after this pain in both heels appeared which was much worse along the tendo-Achilles insertion into the os calcis. The pain in the knee disappeared after about two weeks, but recurred one month before he came here. One week before his admission, this joint had become swollen, warm to touch and more painful. The discomfort in the heels persisted from the onset. During the month prior to admittance he had pain in the low back, which was particularly bothersome early in the morning. He had no symptoms referable to any other joints or other systems. There had been a ten pound weight loss during this illness. There was no history of any similar illness in the past nor manifestations of the rheumatic state.

The physical findings were: T. 99.5° (F); P. 75; R. 25; B.P. 118/75. He was well developed and nourished but walked with short steps and a limp which favored the left leg. There were no abnormal findings in the spine, hips, or upper extremities. The left knee was moderately swollen and contained an increased amount of free fluid. There was some increased warmth about the joint and slight tenderness above the patella; complete extension was possible but pain accompanied this movement, and flexion was limited to 40 degrees during which procedure crepitus was demonstrable. A slight swelling was noticeable over the insertion of each tendo-Achilles; there was tenderness here and over the plantar surface of each heel. Dorsiflexion of each foot was limited and attended with pain. The tonsils were present but not enlarged or septic, and the teeth were in a good state of repair; the gums appeared healthy. The chest was free from adventitious sounds. The heart was not enlarged and no abnormalities were demonstrable. There were no palpable visceral enlargements in the abdomen. A left varicocele was present, but the prostate was not enlarged nor tender.

Laboratory findings: R.B.C. 5,200,000 per cu. mm.; W.B.C. 10,150 per cu. mm.; Hb. 85 per cent (Sahli). Differential: Neutrophils 64 per cent, lymphocytes 22 per cent, and monocytes 14 per cent. The platelets were normal in number and the red blood cells showed no abnormalities. The blood sedimentation rate was 1.1 mm. per minute (upper limit of normal 0.35 mm. per minute), and the hematocrit was 43.5 per cent. The blood Kahn reaction was negative. An occasional white blood cell and a few extracellular diplococci were present in the prostatic fluid. The urine was not abnormal. A blood complement fixation test for gonorrhea was reported as negative on February 17 and February 21. The blood culture and culture of the

prostatic fluid taken on February 23 were negative for gonococci. Thirty c.c. of synovial fluid were removed from the left knee on February 23. This was yellow and clear with W.B.C. 2,875 per cu. mm., R.B.C. 100 per cu. mm.; it had a differential count of neutrophils 16 per cent, lymphocytes 32 per cent, and monocytes 52 per cent. The complement fixation test for gonorrhea on this fluid was positive. The culture of this fluid was sterile.

Course in the hospital: He was given salicylates as indicated for symptomatic relief of his joint discomfort. On February 24, sulfanilamide therapy was started in doses of 2.0 grams (30 grains) every four hours day and night. Equal doses of sodium bicarbonate were given. His blood sulfanilamide was maintained at 10 mg. per cent \pm . It was planned to continue this therapy further, but it was discontinued as the patient was called home March 2 because of illness in his family. There had been both symptomatic and objective improvement at the time of discharge.

Discussion

DR. RICHARD H. FREYBERG: When this patient was considered for presentation today his findings were more pronounced than they are now. His left knee was swollen and showed signs of acute inflammation to a mild degree. There was more swelling posteriorly at the heels which were quite tender and there was increased heat. Notice that the patient has no push-off from the toes which results in the characteristic gait of Achilles bursitis. The history gives no proof of the etiology of his condition although it is quite characteristic—both knee and heel pain started shortly after the urethral discharge which certainly suggests a gonorrheal infection.

The usual history of changes in the joints due to gonococci is quite familiar to most of you. Usually within ten to twenty days after the initial infection, the patient has increased general malaise, aching of the entire body, and especially a generalized arthralgia. With this, there is usually fever which may be high, a leukocytosis and an increased erythrocyte sedimentation rate. After a short time, arthralgia is followed by a persistent true inflammation of one or more joints. A mono-articular arthritis is much less common than a polyarthritis. Sometimes there may be a latent period of months or years between the original infection and the onset of joint complications. It is more common, however, that exacerbations or re-infections account for the arthritis beginning late, after uncomplicated previous gonococcus infection.

Insofar as we know, the joint disease is a true metastatic infection with the gonococcus. In some stages of the illness, commonly when there is a fever, it is reported that the blood stream is infected with the gonococcus. In the studies by Keefer, however, at the Boston City Hospital, only

three of 140 cases had bacteremia without endocarditis. There are certain other complications of gonococcal infection which are often found with gonorrheal arthritis. One of the most common is bilateral catarrhal conjunctivitis which occurs in about 20 per cent of cases. When this exists with joint disease, it should immediately suggest a gonococcal basis for the two diseases. The conjunctivitis practically always disappears without residual. Occasionally, there is an iridocyclitis, however, leading to permanent impairment of vision. Involvement of the tendon sheaths about the wrists and ankles is very common and often there may be abscesses. The patient just presented does not have true tendon sheath involvement, but has bilateral Achilles bursitis. The old saying that spurs of the os calcis are practically always due to gonococcus infection is losing ground. It is true that they are often caused by gonorrhea but I have seen many persons who have had spurs of the os calcis when there was no evidence of gonorrhea.

There is also a skin lesion that sometimes occurs called keratoderma blennorrhagicum. It occurs in only about 3 per cent of all cases and is more frequently seen in males. We have seen two cases during the past month. The lesion is primarily a keratosis of the skin which clears up within ten to forty days.

In regard to the joint involvement, let it be emphasized again, the evidence would indicate that in most cases the joint disease is a metastatic infection of the joint tissues by the gonococci. Keefer has reported two cases which came to autopsy; one had gonococci infected fluid with denuded synovial membranes and scar tissue replacement. The other case did not have infected joint fluid; the synovial lining of the joint capsule was quite intact and the fluid was not purulent. There was definite invasion of the subsynovial tissue with gonococci. The joint fluid is sterile in about 75 per cent of the cases. It is thought, however, that when the fluid is sterile, gonococci exist in the subsynovial tissue. The nature of the fluid differs, depending on whether or not it is infected. When sterile, it is usually a non-purulent fluid and the number of cells is quite small and only a few are of the polymorphonuclear type. In this patient there were about 2,000 cells per cu. mm. which is a small number for an abnormal joint fluid. From the clinical findings in this patient one would not expect the fluid to be purulent. Our cultures were negative.

The end results in the joint vary and (not considering treatment) depend chiefly on whether or not the fluid is infected and purulent. The sterile joint usually heals quite satisfactorily with very little residual. When the fluid is infected, the consequences are much more severe as joint destruction is much more extensive and rapid. As a result, permanent non-functioning joints may be produced within three or four weeks. True, bony ankylosis is said to be rare, but the knee joint, when

it is involved, often has limited and painful motion due to contraction of the capsule. The wrist notoriously becomes ankylosed rapidly as it is more commonly purulent. Bony ankylosis of the spine not infrequently occurs.

The immune and serologic reactions of these cases are very interesting. The complement fixation test is usually positive in the majority of cases within three to six weeks and sometimes as early as one week after the onset of infection. It may remain positive for from six months to two years after a clinical cure. The complement fixation test, however, is not 100 per cent reliable as the best figures indicate that it is positive in only about 85 per cent of the cases of proven gonococcal arthritis. There is, then, a 15 per cent chance that the complement fixation test may be negative. Occasionally, false-positive reactions occur. The serum complement fixation test is negative in this patient. I am definitely of the opinion, however, that he has gonorrheal arthritis and bursitis.

It would be helpful to know why arthritis occurs in only a relatively few persons who have gonorrhea. It is estimated that between one and two million persons are infected each year with gonococci but only 3 to 5 per cent of them develop gonococcal arthritis. Among the factors likely responsible for the limited occurrence of arthritis are variation in virulence of different strains of gonococci; differences in the local inflammatory reaction to the primary infection; variations in the bacteriocidal effect of the blood; and probably a difference in the bacteriocidal power of the joint fluid.

I have emphasized the diagnostic consideration for two reasons. First, it is extremely important to prove, if possible, the etiology in every case of arthritis. Many mistakes are made in statistical data because of incorrect diagnoses. Second, the treatment of gonorrheal arthritis differs distinctly from other types.

The treatment of choice is the proper administration of sulfanilamide. There have been varied reports concerning the value of this drug in gonorrheal arthritis. Dr. Bauer of the Massachusetts General Hospital recently made a careful study of the efficacy of sulfanilamide in this type of joint disease. He studied 14 proven cases, and four most probably due to gonococci. He reported that if sulfanilamide were given in large doses for a sufficiently long time, *all* the patients responded with clinical and bacteriologic cures. He recommended doses up to 0.15 grams per pound of body weight every twenty-four hours. In each patient, there was prompt improvement of the joints. Furthermore, if the medication is given in sufficiently large doses to cause a rapid elevation of the blood concentration of sulfanilamide to 10 mg. per cent or higher, evidence of cure, both clinically and bacteriologically, usually begins before the third day of treatment. Dr. Keefer has recently reported good results with

smaller doses of this drug. We have had excellent results here with large doses comparable to those advised by Dr. Bauer. This patient will be treated with either sulfanilamide or neoprontosil.

Until two years ago, one was equally enthusiastic about fever therapy in treatment of acute gonorrheal arthritis as we now are for sulfanilamide, and it is true that the majority of cases can be cured with proper fever therapy. Killed typhoid bacilli injected intravenously is a satisfactory means of producing fever if the proper apparatus is not available. Deep roentgen therapy to the joints involved has been reported to be curative. In all of these types of treatment, satisfactory management of the genito-urinary infection is obviously necessary.

I think sulfanilamide therapy is the one of choice when it can be tolerated. It is necessary to have another satisfactory treatment available when the patient cannot tolerate this drug and fever therapy is my second choice. Recently, it has been reported

that when a cure did not result from sulfanilamide or fever therapy used independently, excellent results were obtained when they were combined.

DR. BERT M. BULLINGTON: Does the sulfanilamide have any effect on the complement fixation test?

DR. NOYES L. AVERY: Dr. Keefer, in his last article, discusses this and he says that it does not have any effect on the complement fixation test.

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MEDICAL ECONOMIC PROBLEMS*

W. P. WOODWORTH, M.D.

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I wish to take this opportunity to thank the Program Committee for inviting the Guild to participate in this symposium.

Regarding the Medical Guild, may I state briefly that this is a small group of private practitioners, organized for the purpose of studying some of the problems in medical economics. These men have devoted considerable time, and not a little of their money to better certain conditions that prevailed in Wayne County. As a result of its work, the Guild feels that it is justified in continuing. Just how much good has been accomplished through these efforts, time only will tell. In attempting accomplishments, the Guilds finds that its ideas are never right one hundred per cent. Their sincerity of purpose, however, has always been one hundred per cent. This group is firmly of the opinion that the most useful and influential unit in organized medicine today is an up and doing County Society. We further feel that through the effort of the officers, with the cooperation of the various committees as well as members, this Wayne County Society is rapidly establishing itself as one of the most progressive County units in the country. So much for the Guild.

As a preface to some of my later remarks, may I be permitted to sketch briefly for you some of the background, responsible for factors, that make a meeting of this nature necessary? There is nothing new in this picture and I am willing to risk the

odium of repetition, only because of the seriousness of the situation.

Medicine as an integral part of our civilization is afflicted with the same blight as has descended on Industry, Agriculture, and other groups in the community, namely: the economic breakdown. With this in mind it becomes evident that a successful remedy can come only as a result of united effort on the part of all. As disease affects some individuals differently from others, so does this economic illness affect the various groups, each having its own peculiar problem to deal with. One of the chief problems peculiar to medicine, is how best to re-establish the profession in the good graces of the public.

For the past several years medicine has been the target of attack on the part of small groups of socialistic and communistic minded individuals. They make good use of the press and many pink-tinted magazines, as well as other methods. Present economic conditions were a major factor, no doubt, in welding these groups into a goodly-sized, as well as, vociferous party. With determination and unity of purpose (of which I wish we had more) they spread their propaganda containing half-truths and untruths regarding the profession. Their efforts were so successful that as a climax they were able to have the great American Medical Association indicted by the United States Government as an organization in restraint of trade. Charges in the indictment accuse the profession with about

*This paper was read as part of a Symposium on Medical Economics before the Wayne County Medical Society, January 29, 1939.

everything from gross incompetency to outright dishonesty.

Contrast these attacks from Washington and other places with the recently published reports from the Surgeon General's Office, in which it is stated, that never before in the history of the country was the health of the citizens at such a high level. This paradox of reportorial effort is probably listed in Washington circles as a minor incongruity, but it does not require much thought on the part of any one to arrive at the conclusion that the whole business is a matter of political expediency, rather than medical necessity.

Regarding these differing reports from Washington, may I call your attention to an editorial which appeared in the *Medical News* of one week ago and from which I borrowed the idea? Editorials in both the *News* and the *Detroit Free Press*, following the same trend of thought, have appeared since the publication of this article. Our editor, Dr. Bates, is to be commended and congratulated on an editorial of this nature. Wide dissemination of this article could be made with untold benefits to the profession.

Gentlemen, this assault on medicine by governmental authorities is nothing more or less than a thinly-veiled subterfuge, for attacking the very foundation of government by a free people, and was selected as the likeliest wedge that could be inserted for the destruction of democracy. This is a critical period not only in the history of medicine but of the country. Now, as never before, is it absolutely essential that medicine be united against any individual, or group of individuals, who, either from without, or within, seek to destroy a structure which for the past seventy-five years and better, has built up and maintained the greatest system of medical administration the work has even known.

We are all too well aware of the encouragement given to a large part of the populace by a paternalistic-minded government. Due to long periods of government subsidy, many persons, including a goodly share of the undeserving, are no longer requesting aid for various commodities, including medicine; they are demanding them. Combined efforts of governmental, social and communistic groups, economic conditions, together with the apathy of the majority of the profession, rather than any breakdown in our present system of medicine, are responsible for most of the troubles which beset us.

It may appear strange to many that medicine has been silently extolling her virtues, while interlopers have ballyhooed her faults.

As an offset to the unfavorable position in which medicine finds itself as a result of all this derogatory publicity, the Guild believes that the best weapon of offense is "bigger and better" publicity. Reticence on the part of advertising in the past to anything that savors of advertising has been one of our chief weaknesses. We have taken too much

for granted regarding our status in the community. The public must be informed what it is to expect if the profession is allowed to deteriorate under governmental control. Stress must be placed on the inconvenience and suffering the public undergo, rather than the economic loss to the profession. Plans should be set up whereby the public can be informed as to what medicine has meant to them in the past, what it is doing for them at present, and what benefits it can expect in the future, from an unhampered profession. Few people realize that it was largely due to the advances in medicine that made possible our modern civilization.

In an effort to find out what the medical men in Wayne County thought regarding publicity for the profession, the Guild recently sent a questionnaire to the membership of some eighteen hundred, and received replies from more than five hundred. A fairly high percentage of returns for this method of inquiry. I present to you the questions with the results tabulated in percentages:

1. Do you favor a more aggressive policy of publicity and education by organized medicine in the present economic crises? (Yes 451, 95 per cent) (No 24, 5 per cent).
2. Would you favor that part of the time now given to radio scientific programs be utilized to refute misstatements concerning the medical profession by press and radio? (Yes 433, 92 per cent) (No. 34, 8 per cent).
3. Do you favor allocating a portion of your dues to educating the public with the advantages of the American system of medicine as contrasted with socialized system? (Yes 439, 94 per cent) (No 30, 6 per cent).
4. Do you favor more meetings where medical economics can be discussed? (Yes 416, 91 per cent) (No 43, 9 per cent).
5. Are you in favor of requesting the Michigan State Medical Journal to clarify all matters pertaining to medical economics and legislation? (Yes 460, 98 per cent) (No 4, 2 per cent).
6. Are you satisfied with the small amount of publicity appearing in the *Medical News* regarding matters pertaining to medical economics and legislation? (Yes 42, 9 per cent) (No 401, 91 per cent).
7. Should we engage on our medical programs proponents of socialized medicine except in open forums? (Yes 92, 21 per cent) (No. 339, 79 per cent).
8. Do you believe that all state and county cases should be made staff cases and the family physician be deprived of the case and the fee? (Yes 28, 6 per cent) (No 437, 94 per cent).

These figures are presented to the society not with the idea of recommendations or as a mandate from part of the organization, but as information which may be utilized to formulate publicity, should such be deemed advisable. Press and Radio publicity are desirable, but usually expensive. All avenues of publicity should be studied, and all groups having ideas along these lines should be heard, but action in this direction should be initiated without delay.

Our able President of the State Society, Dr. Luce,

made a statement in one of his early letters in the JOURNAL something to this effect: "Payment of dues is no longer sufficient requisite for good standing in your medical society". No language at my command could better phrase an admonition to the laggard in the profession who contributes only his dues but reaps all the benefits. May I remind the apathetic members of our society that the time is past when shirking your duty is either fair to others, or just to yourselves. If we as doctors can rightfully expect help from others, we must first show them that we are able and willing to help ourselves, which brings me to a discussion of a plan for publicity which, based on the experience of the Guild, has proven to be productive of excellent results.

For years past the profession has had very little to do with the moulding of public opinion, partly because of the fallacy that we did not think we needed it, and partly because we have never apparently realized the potentialities for such purpose, which are right in our very offices. With the possible exception of the clergy, there is no group of men on earth who are closer to the people than the doctors. A smart politician is the one who realizes that if he can get close enough to the people, he can have any office he desires. We recommend using some of this psychology. We as doctors believe that our present system of medical administration, despite its faults, is the finest in the world. Any plan of publicity that does not convince the people of this is doomed to failure.

Why are the Guild members enthusiastic regarding the plan of direct advertising through the doctor's office to the patient? Our experience in the last election in helping to defeat the Welfare bill taught us something. In spite of official disapproval of our County Society, many members were very lukewarm in their opposition to this measure. The City fathers and other groups were for it and we had to deal with a hostile press. Incidentally, it is paradoxical that the press, which bitterly opposes Federal bureaucracy, should be found only too frequently lending its support to groups and measures, which are an integral part of such Federal programs. To make a long story short, we had pamphlets printed and distributed from doctor's offices, prescriptions were wrapped in them, and even milk bottles were delivered with this literature around them. Very little money was used for Radio time. How do we know that this system accomplished what is claimed for it? Well we have been given credit and recognition for our part in that campaign by those in a position to know, and incidentally the measure was defeated. My principal reasons for citing the opposition of the press and others are mentioned solely with the idea of conveying to you what powerful influences we overcame by this method.

Some of the chief factors which recommend this

plan to us are its low cost compared with other forms of advertising; it is readily applicable to doctors, dentists, pharmacists and certain other groups. It can be applied on a small scale such as our own county or several counties can combine.

In our opinion it has national possibilities. Sporadic efforts along these lines have been attempted but nothing in the form of a well-organized campaign on a large scale has been attempted to my knowledge.

It might be well to make a few suggestions that would assist in putting this plan to operation. First, we feel that an advisory board composed of doctors, dentists, pharmacists and other interested groups, should be appointed. The matter should be placed in the hands of a competent advertising concern. The pamphlets should be in series. Regarding this particular feature, it is not sufficient that pamphlets be placed on the waiting-room desk. If we are to achieve the maximum results from this method, the pamphlets must be given to the patient by the doctor himself. The follow-up series is not only to present our side of the story but to avoid handing out the same material week after week. Visualize, if you can, the potentialities of a system embracing approximately one hundred thousand doctors, sixty thousand dentists, and I don't know how many drug-stores, passing this material directly to the public. Another big advantage of this plan is that while press space and radio items are available to those of our opponents who can afford to purchase the same, the avenues of outlet from the doctors, dentists, et cetera, are closed to all but ourselves.

Just a word concerning policies, a subject abhorrent to the average doctor, but times have changed much in the past ten years and we can no longer sit idly by and be lulled into a sense of security by tunes from the old caliope.

Guild members have found that there are men in public life, regardless of party affiliations, who are eager and willing to do what is right for the people. Far better that we trust duly elected officials with our affairs than any type of bureaucracy. Sympathetic officials are good allies.

Our troubles did not descend on us in a day. Neither must we expect to be rid of them over night. Do not underestimate the ability of our opponents in the Government service, they have brains and intelligence and OUR money with which to carry on. Whether or not we like it, we are in a long drawn-out battle between the forces of sociologic bureaucracy on one side and American democracy on the other. Let there be no doubt as to where we stand. The world is aware of the great fight that medicine has waged against disease. Let us now show America that we as physicians and citizens can battle with the same vigor for our sovereign rights. Quitters are never winners, and it is not too late for action.

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*"Every man owes some of his time to the up-
 building of the profession to which he belongs."*

—THEODORE ROOSEVELT.

EDITORIAL

PROGRESS IN THE CONTROL OF CANCER*

THE unknown horizons of cancer are being pushed back farther and farther through the three closely related activities of clinical diagnosis and treatment, research, and education. Each of these is making significant contributions to a wider understanding of the problems of malignancy. One of the most interesting aspects of the entire cancer problem is that practically every bit of additional information about the

disease adds to the hopefulness of its eventual control as a major cause of death.

Realization by the medical profession that the diagnosis and treatment of cancer is no longer a one-man problem is offering much additional hope to the cancer patient. The value of organized tumor clinics in general hospitals—nearly three hundred of which are now functioning—is bringing a better appreciation of the complexities of this problem in modern medical practice. These clinics offer help to the family physician who is often denied access to necessary diagnostic and therapeutic facilities; while to the cancer patient it gives the benefits of group consultations with those having the widest experience with malignant disease.

An additional advantage of the tumor clinic is its usefulness as a center for graduate study for all physicians within its sphere of influence. This is possible largely because of the increased number of cancer patients seen in comparison with the relatively small number of such patients seen in the average general hospital. The value of comparative methods of treatment can be established much sooner where large numbers of patients are seen. All in all, the tumor clinic offers the maximum of good service to the cancer patient and excellent opportunities for education of the physician.

In the field of research some of the most significant contributions to our knowledge about cancer are being made in the sciences of biology, chemistry, physics, and genetics. The rôle of certain chemicals—now numbering approximately fifty with more being added at frequent intervals—in the etiology of cancer is now fully appreciated. The knowledge that cancer is primarily a biological problem concerned with the vital function of cell growth is stimulating research workers to focus attention on the cell to identify those forces responsible for malignant changes in the cell.

Cancer research, today, is concerned more and more with the chemical nature of cell activity and inquiry is being actively pushed in the field of biochemical investigations. Wide researches are under way to find those chemicals with the most potent influence on normal and abnormal cell activity.

The physicist is extending knowledge of irradiation therapy, with the result that in-

*This editorial was written by Dr. F. L. Rector, field representative of the American Society for the Control of Cancer.

creasing use is being made of this therapeutic agent in the treatment of malignancy both for curative and palliative purposes.

Studies in genetics have been confined largely to work with laboratory animals. The further this work progresses the more evident it becomes that vastly improved records of human cancer are essential if we are to know more accurately the influence of heredity on cancer development in the human race. Because the great majority of marriages bring about a dilution of the probability of transmitting cancer to offspring through susceptible parents most geneticists are unwilling to go beyond recognition of the possible transmission of susceptibility to cancer in succeeding generations. Even though cancer may be proved to be conditioned by heredity, the rapidly expanding appreciation of the value of early diagnosis and prompt treatment will continue to offer much hope to the cancer patient and will more than offset such handicaps as heredity may impose.

The greatest advance in cancer education of the public has been the organization of the Women's Field Army of the American Society for the Control of Cancer. This organization now extends to forty-six states, of which our own was among the first to be included. Its objectives are to bring to the general public the known and accepted facts about cancer and methods for its control. The presentation of these facts by the medical profession to hundreds of audiences has caused thousands of persons for the first time to seek examinations to determine their freedom from this disease. It has caused thousands of others to replace their unreasoning fear of the disease with an intelligent caution toward this question.

The value of this educational program cannot be fully measured, but the medical profession is in a position to know better than any one else the results of this program as their patients come in increasing numbers for attention to their questions about this disease. Success of this educational work rests in large measure on full cooperation by the medical profession. As the objectives of periodic examination and recognition of the early signs of cancer become better understood, a fuller coöperation by the physician will be expected.

The outlook for controlling the increased number of deaths from cancer in this state

is becoming brighter. That fortunate time will be hastened in proportion to the cooperation that is developed between the patient and his physician. Education will reduce the waiting period by the patient in seeking professional advice and service. The physician will make his contribution by not delaying in diagnosis and treatment once the condition is brought to his attention.

GERIATRICS

THIS word presents no difficulty to the physician who has included Greek among his premedical subjects. *Geras*, old age, and *iatros*, physician. Geriatrics is the opposite to pediatrics, which should be more correctly spelled "pædiatrics." The reader will pardon this display of erudition. We are pleased to present a paper on the subject of geriatrics, by Professor Carl D. Camp of the University of Michigan. Considering the fact that the number of old people is gradually increasing, with special ailments incident to age, a paper on the subject of geriatrics is long overdue. We have never read a clearer or more concise presentation of the subject than Dr. Camp's paper.

With the placement of the retirement age from sixty up, particularly in occupations in which the worker draws a salary, a great many men who are physically and mentally capable are thrown out of employment. Dr. Camp quotes from the report of the Committee on Population Problems to the National Resources Committee, that in 1930 there were about 12 million children under five years of age and six and a half million persons over sixty-five years of age; and if the present trend continues, by 1980 there will be six and a half million children under five years of age and twenty-two million over sixty-five years of age. Dr. Camp makes an interesting distinction between the mental age and the chronological age of this group. To persons who are in independent occupations such as most of the professions have been up to the present time, the difficulty is not so great, inasmuch as the period of retirement from actual work is a matter for the individual himself to determine. The seventh decade of life in any event should be one of change in human relationship. Even those in independent occupations, if they are wise, will avoid taking on new obligations and will adjust themselves to habit,

which is a great economizer of physical as well as mental strength. Happy is the man or woman who has cultivated a hobby; something from which he may derive satisfaction irrespective of any income connected with it. Longevity, Dr. Camp goes on to say, is largely a matter of heredity and that in turn depends upon the quality of arteries which one has inherited. The old saying, that a man is as old as his arteries, is one that has not been revised with the progress in modern research. The octogenarian, when asked, is prone to attribute his length of years to some wisdom on his part, and is apt to ascribe it to some deliberate habits of life, as old Adam in "As You Like It."

"Though I look old, yet I am strong and lusty:
For in my youth I never did apply
Hot and rebellious liquors in my blood,
Nor did not with unbashful forehead woo
The means of weakness and debility;
Therefore my age is as a lusty winter,
Frosty, but kindly."

Dr. Camp goes on to indicate the changes that accompany the aging process. He gives wise council on the subject of blood pressure, which causes so much anxiety not only to many aged patients, but to their physicians as well. We will not enumerate what Dr. Camp has so well done.

The literature on pediatrics is voluminous; that on geriatrics is very meager in comparison. Here is a fertile field for clinical study and research.

THE RÔLE OF MEDICAL EDUCATION AND THE PHYSICIAN IN MATERNAL HEALTH

THE important rôle played by the physician in the Maternal welfare of this commonwealth, is very nicely revealed in the recent survey of Maternal Care in Michigan, which was carried out by the Maternal Welfare Committee of the Michigan State Medical Society.

The survey revealed that ninety-seven per cent of the babies born in Michigan during the period of this survey, were delivered by physicians. Among the 21,568 births were 394 or 1.8 per cent who were confined by doctors of osteopathy, and about an equal number by persons of unknown identity, including midwives and nurses. This finding firmly establishes the responsible position held by the medical profession in this one phase of public health.

Approximately three-fourths of the phy-

sicians who attended confinements, during the period of this study, were affiliated with the American Medical Association, and thereby, with the State and their local County Medical Societies. This fact emphasizes the leadership which the State Medical Society should exert in behalf of Maternal Health.

Fifty-six per cent of the births in the study were attended by graduates of the two medical schools in the State of Michigan. Thirty per cent of the birth attendants were trained at other medical schools, most of them large Universities located in neighboring states. Less than two per cent of the birth attendants whose records were available in the American Medical Association Directory, were graduates of schools of unacceptable medical standards. About three-fourths of the births in Michigan are attended by medical graduates of the past twenty-five years.

Nearly half of the physicians in Michigan practise Obstetrics. Only about five per cent deliver more than twenty babies per quarter. About one-fourth of the physicians of the State deliver eighty-five per cent of the babies.

The quality of maternal care in Michigan, obviously revolves entirely around the physician. Postgraduate education is the logical means of enlightening the practitioner upon the advances in obstetrical care. Public Health programs for the improvements of obstetrical care, will be most effective if centered about the medical profession, as the producers of that care.

Since graduates of two medical schools in the State deliver more than half the babies in Michigan, the importance of the teaching in these institutions becomes more apparent. Through their curricula, these institutions can immediately exert a great influence upon the type of obstetrical care received by the women of Michigan. The Michigan State Medical Society, through its postgraduate work in obstetrics and the two medical colleges, through their undergraduate teaching, are the two leading factors which will most quickly influence maternal welfare in Michigan, and should receive the hearty coöperation of local physicians.

HAROLD A. FURLONG, M.D.

Member, Committee on Maternal Health, Michigan State Medical Society.

PREMEDICAL EDUCATION

DR. FOSTER KENNEDY of New York has written an interesting letter to the *New York Times* of February 12, on the subject of premedical education. The plea in Dr. Kennedy's letter is for premedical training that would lead to a more cultural background than that prescribed at the present time. Instead of the present four year medical course, Dr. Kennedy would increase the medical course to five years, carrying the humanities *pari passu* with medical education. He says:

"A student of pathology might be a better student of pathology if he were required to read, perhaps, Henry Hallam's 'History of the Middle Ages' in the same semester. And an appreciation of fine poetry is not incompatible in the same evening with reading Cecil's 'Textbook on Medicine.' To have the two running alongside each other might help to diversify thought and stimulate ideas in each."

We heartily agree with Dr. Kennedy. The disposition to be a doctor and nothing else is too strong with the average medical student and frequently the premedical course is perused with the feeling in mind to get it over and to pass the necessary examinations so as to enter upon the study of medicine. If medicine is to be a learned profession, it should include cultural subjects as well. The omission, or making optional Greek and Latin in premedical work, has been most unfortunate. True, the student in the time allotted may not acquire fluency in reading Virgil or Horace or Homer's Iliad, and equally true these works may be obtained in translations that are much superior to those any student could hope to make; there is something, however, in the sentence structure of these languages and in the study of words which is entirely lost in a translation. As a recreation, if for no other purpose, a lifelong study of history and literature, though it may be desultory and sporadic and not indulged in to improve one's mind, is one of the best antidotes possible for prolonged application to medical study. The mind cannot rest by simply becoming inactive. Mental rest comes best from change in subject.

Dr. Kennedy goes on to say that a physician may be a "cultivated" man without the present obligatory B.A. course. To this we heartily subscribe, and go farther, namely a man may hold a B.A. degree without being cultured. Whether a man is "culti-

vated," to use the expression of Dr. Kennedy and also the *New York Times*, depends upon his reaction to what he reads and studies. If it is perused in the spirit of intense interest, it will become part of himself. The late Dr. Osler, who had no university degree apart from his M.D., was one of the most erudite and cultured men in the medical profession or indeed in any profession. He loved to study and graduation day to him was in the true sense "commencement" and not the date of completion of his education. We, therefore, heartily endorse Dr. Foster Kennedy's plea to continue the humanities along with medical work.

AS THE LAYMAN VIEWS IT

MEMBERS of the medical profession are sometimes at a loss to understand the attitude of the lawmakers, not only in Michigan, but in other states as well, towards the healing cults. The attitude, however, on the part of the legislator is one of fair play. He tries to view all those who essay to take care of the sick in the same light. To him, there are schools of medicine, so-called, and in all fairness, each should be given an equal opportunity with the others.

The members of the regular medical profession, however, have a different view. It is with them a matter of fair play to the sick and not to those who would aspire to care for them. The doctor is not and has never been reconciled to the idea of "schools" of medicine, interpreted as the various healing cults. The state at large has officially disavowed a belief in cultism. To be more specific, there are no state endowed schools or colleges for the purposes of teaching the tenets of any cult. The state recognizes only scientific medicine. Cultism in the matter of the care of the sick should be discouraged in every way, in the interests of the afflicted who are not in a position to evaluate the merits or demerits of healers.

The regular medical profession has raised its own standards. It has made use of such collateral or ancillary sciences as chemistry, physics, biology, and has built up a body of knowledge that requires not only years of special training but one to several years of practice before the candidate is deemed sufficiently qualified to attend the sick. If there is any unfairness, it consists in compelling

certain young men and women to fulfill the state requirements of medical education and experience and allowing others to practice after attending cult institutions, most of which, so far as we know, are outside of the state. In fairness, every aspirant to the healing art should be compelled to qualify in the best state recognized schools, of which two are located in Michigan.

The absurdity of cultism is seen if we could apply the term to law or to engineering. Imagine having a deed to property written according to the tenets of a certain legal cult, or the building of a bridge according to the peculiarities of a certain engineering "cult" with some special theory of mathematics. There is only one medicine, that which is taught at the University of Michigan or Wayne University Medical School, or in similar institutions in other states, or highly endowed independent universities throughout the land.

KEEP IN TOUCH WITH YOUR REPRESENTATIVES

WHAT mercantile house or industrialist would hire or appoint a person to act as his agent and not keep in close touch with his work from time to time or at frequent intervals? The delegates of the Michigan State Medical Society are your immediate agents. Next to them are the members of the council of the society. Do you, reader member, consult with the councillor of your district frequently, or write him expressing your approval or disapproval of his course of action, or, having elected him, do you dismiss the matter of representation from your mind until the time comes to re-elect him or to elect a successor? Would you not get better service if you kept in touch with him and registered your attitude from time to time?

You are represented in a professional way by the councillor of your district who endeavors to carry out the policies of your house of delegates. You are represented in the broader field of citizenship by the persons you elect as members of the council of your city, or county or your state legislature or your national senate and house of representatives. They may seem to you further away than your medical society representatives. Their influence, however, is exerted on your civic and economic inter-

ests and to a very large degree on the health interests of the local municipality, the state and the nation. They are human and appreciative of letters discussing your and their common interests. How often do we elect a member to the state legislature or to Congress and that is the end of our interest, until election comes around again? Would it not be the better part of wisdom to keep in touch with him throughout the session, let him know you approve of his conduct (if you do) or discuss in a dispassionate way anything with which you disagree, with suggestions and well thought out reasons for your own view?

We believe any honest and thoughtful representative would welcome your advice. He might not always find it expedient to follow it. The fact, however, that you registered it would have some effect. Time spent in writing a brief, clear letter is time well spent.

THE FAMILY DOCTOR

The family doctor has always been heralded the adviser and counselor of his patients on many subjects. He has always been the trusted confidant. The *Saturday Evening Post*, in an article by J. P. McEvoy, makes the following note in its record of the development of Shirley Temple:

"All of Shirley's earnings are put in a trust fund for her benefit when she grows up. I am making enough myself, so I don't have to touch any of it." And then Mrs. Temple continued: "You know, Bernstein wanted to handle Shirley. He came over here to the house with Mrs. Coogan one day, and walked up and down the living room waving a check for half a million dollars in my face. He told me he had just got this for Jackie and we ought to let him handle Shirley, because we didn't know anything about the picture business and we would certainly be cheated if we didn't let him take care of us.

"Practically every agent in town had been after us, and we didn't know which way to turn. Bernstein talked and talked until we were dizzy, and then, in desperation, we called up our family doctor and asked him to come over and advise us, because he was the only professional man we knew. He has been advising us ever since."

"You have no agent?" I was incredulous. Every one has an agent in Hollywood, even the agents.

"No agent."

I made a rapid calculation. Ten per cent of the Temple earnings saved. Nice going for a family doctor.

"Of course, we have a lawyer now who helps us but weren't we lucky to have such a sensible doctor?"—*Jour. A.M.A.*, July 23, 1938.

Suggestions

Dr. Robert Monfort of Onaway, Michigan, sends in the following suggestions in regard to methods in daily practice. The reader may have others that may be of interest and value to other readers. Brief suggestions on any subject incident to daily practice will be gratefully received for this department.

Five Minute Urinalysis

Repeated observations of the average physician's routine of office urinalysis and the fact that the doctor or his nurse each with valuable time to sell frequently spend all too much time stumbling hit and miss fashion through that simplest and most dreary of laboratory procedures, have prompted this note. If you have slipped into the "albumin and microscopic, please," "just an albumin" or "sugar on this one" habit, the following will interest you for it demonstrates that reasonably complete qualitative urinalyses may be performed in the same time that it takes to do a simple sugar estimation.

Two burners are required, together with some form of support for a test tube holder. For this latter, I use an ordinary pasteboard box in dimensions about 9 by 6 by 6 inches, stood on end with two of the end covers removed and the other two strapped down lightly with adhesive. The handle of the test tube holder is slipped between the edges of these latter, which effectively support the holder, at the same time pointing it at a slight angle so that when the tube is in place, it slants away from the box, thus preventing scorching of the latter by the Bunsen or alcohol flame which is to be placed below the supported test tube. Better standards may be purchased, of course.

The routine: Three tubes are taken in hand. Into the first, an ordinary test tube, goes Benedict's, urine and two glass beads; the second and third, one a centrifuge tube, the other a specific gravity tube, are partially filled with urine. The centrifuge tube is dropped into its cup and the apparatus turned on. The sugar tube is snapped into the aforementioned test tube holder and a flame brought beneath it. A little practice enables one to judge proper height of flame and distance from tube. The specific gravity is taken on the urine in the remaining tube and a piece of litmus added for reaction. The top urine in this same tube is now brought to a boil over a second burner, acetic added and the boiling repeated (for albumin). Microscopic examination of the centrifuged specimen is done at this point and if a nurse is doing the work, the doctor is summoned to check the findings. By this time, the sugar tube has boiled the required five minutes and may be read. The whole procedure has taken a little over five minutes.

Advantages: this routine is of value only in the tiny office laboratory where, as a rule, only one urine at a time is examined. The temptation to do incomplete examinations is taken away. For the very thorough physician who, however, only does

a few urinalyses during the day, it saves him from putting them off till night when he "has time" (but is most tired). The completed urinalysis is always awaiting him when he has finished his clinical examination of the patient. The necessity for the continuous and penny consuming water-bath (vital in large laboratories) plus many of the boring aspects of the routine, is obviated.

Sanitary Tourniquet

Meticulously sanitary though he may be in every point of office routine, the physician still uses the unsanitary rubber tube for tourniquet purposes. He may be as clean as his barber and not offer the same headrest to every patient, nor may he use the same tongue-blade on all comers, but he will wind the same rubber tube uncleared about dirty arms, and clean arms, all day long without qualm of conscience.

Further, rubber tubing hurts when it is applied. Have it tried on yourself. Fat rubber tubing (as suggested recently by Williams in *J. Lab. and Clin. Med.*, 23:1296, 1938) is decidedly more comfortable, and has a number of other advantages, but remains unsanitary.

Adhesive is one answer—one-half-inch adhesive. The *middle* of a strip two or three inches longer than the circumference of the arm is applied, gummed side *away* from the skin, to the *back* of say the left arm. The end nearest the body is grasped with the right hand, the other end with the left hand. Thus the hands are crossed. Tighten the band till desired constriction is produced, with a twist of both wrists, the ends are turned over so that the adhering surfaces oppose and contact the smooth surfaces of the strip already around the arm but with about one inch of the uppermost end remaining free. A little tug on this free end releases the tourniquet.

The procedure is absolutely without discomfort. The adhesive does not slip. The veins, as with the use of flat rubber tubing, are more prominent. The added expense is infinitesimal. The time required for application is reduced. The ends and middle of the tourniquet never flop down onto the field of operation as often happens with rubber tubing if hurriedly applied. Psychologically, the sanitary feature is sound.

PERPETUAL MOTION

You tell me there's nae sic a thing,
As motion that's perpetual,
And my apology goes tae him
That thinks he kens that ritual.

I ken that you and he as well,
Have studied science fairly,
And ye may think I'm in a spell
If I dispute ye sairly.

Noo, I'm no for grieving ye too much,
Nor to your eyes hot tears tae bring,
But, come tae me all ye and such
That thinks there is nae sic a thing—

I'll show ye a' a wee machine,
A thing I call my "spindle,"
It holds my bills as they come in
With plenty more to mingle.
I pay one off, I put one on,
A constant move and jingle,
It's on and off, and off and on—
Perpetual motion on my spindle!

WEELUM



YOUR ESTATE

Its Accumulation, Conservation, and Distribution

BY HENRY C. BLACK and
ALLISON E. SKAGGS

INTRODUCING the subject of estates in the next few issues we will recount some of our experiences in conserving and liquidating a number of doctors' estates, call attention to commonly neglected essentials, and, from some of the conclusions impressed upon us, attempt to emphasize the important procedures that may be of benefit to our readers. We hope thus to help bring about a realization of the problems that exist, and cause each individual doctor to seek the solution that best applies to his own particular case.

From time to time brief articles have appeared in these columns, stressing the need for business-like thought and action in trying to attain the ultimate of satisfaction from what is termed "a successful practice of medicine." In these articles simple routines to improve income have been described; costs of maintaining a practice in the different income groups have been compared; investments and life insurance have been touched upon briefly; and liquidations and partnerships have been discussed.

However, in the past few years our attention has frequently been called to the problems involved in conserving and distributing the estates that so many doctors are busy accumulating. Our experiences while assisting in the liquidation of a number of doctors' estates, and while helping in the planning of a number of others, seem to indicate that we might offer suggestions in such matters which, if followed, might be of considerable value.

In considering the estate (property and possessions) it must not be overlooked that we are referring to something that already exists; that our plans for it are today's problem, not tomorrow's; and that during the accumulation period thought should be given not only to the possible distribution in the event of death, but to the probable requirements during life. This necessitates an accumulation that will accomplish either

purpose equally well, and in addition this accumulation of values must be conserved with both ideas in mind. Thus we believe that the building of the estate should be done conservatively so that a sudden drop in income will not cause immediate financial embarrassment. It is usually unnecessary for investments to be jeopardized by heavy liabilities which, if not paid promptly, will wipe out the equity entirely.

How many doctors have worked and saved throughout a number of good years only to find that, instead of being able to take things a little easier and enjoy the relaxation of a less strenuous practice, they are forced to continue their efforts unceasingly to protect what savings they have made or to recoup their losses! Losses are frequently incurred through attempts to accumulate more rapidly than conservative saving permitted. In all of our experience we have seldom if ever found a doctor who has built up and kept a substantial estate through successful speculation. Although such a situation is possible, of course, it seems to be the exception rather than the rule.

These errors in the accumulation and conservation of an estate usually seem to be the product of snap-judgment; while the failure to provide for a proper distribution of an estate usually seems to be a result of procrastination. We just postpone making a will, or do not keep it up to date.

In subsequent issues we will write more in detail on some of the following topics, with no thought of attempting an academic treatise but only to discuss informally some observations based on our own experience in dealing with them:

Wills, their importance and their preparation.

Appraisals of Accounts Receivable, their relation to your estate, their effect on federal income and estate taxes.

Estate Study, its importance, factors to be considered and results to be accomplished.

Security, how to prepare for the later years.

Retirement, methods of getting the most out of practices through gradual retirement, junior-senior associations, et cetera.

President's Page

PERHAPS this president's page would be more appropriate at the end of the year, but the work of the committee men and officers of the Society has been so arduous and has required so much personal sacrifice on the part of members that I cannot refrain from calling to the attention of the entire membership these facts. As a group, we are unaware of the amount of effort that is expended. Give your committee men a word of commendation occasionally. They will appreciate it.

Although the future of medicine sometimes looks dark and foreboding, yet when one surveys the united front of men of medicine and knows the spirit of the leaders in the various county societies as well as the state organization, one cannot see anything but constructive and commendable progress. Our objectives are of the highest social ideals.

In over a third of a century of close contact with organized medicine, I have yet to see a sordid or commercial impulse motivate the actions of our medical societies.

Most sincerely,

A handwritten signature in cursive script, reading "Henry A. Luce". The signature is fluid and elegant, with a prominent initial "H".

President, Michigan State Medical Society.

Department of Economics

L. FERNALD FOSTER, M.D., Secretary

TECHNICAL SERVICES

WITH the evolution of plans for hospital insurance, attention has been called to the question of professional services. As the practice of medicine has invoked more and more diagnostic features of the technical variety, it has become more and more difficult to distinguish between "professional" services and "technical" services.

There has developed, in recent years, a very intimate relationship between hospital services and those of pathologists, roentgenologists and anesthetists. This relationship has become more complicated because of the variety of agreements existing between various hospitals and these groups.

In order to set up a working agreement for insurance purposes between hospitals and medical associations, a definition of the various services had to be established. In Michigan, this definition, as established by the Michigan State Medical Society and the Michigan Hospital Association, is as follows:

"It is agreed that the professional services of a doctor of medicine shall not be included in group hospital service programs. Technical services may be rendered as hereinafter defined: Technical services, in connection with hospital and medical service plans, are not considered professional medical services unless rendered directly by a doctor of medicine. Notwithstanding the above definition, it is agreed that the hospital program will not include any x-ray service."

FEDERAL MEDICINE

BEFORE any system of Federalized Medicine is established in this country, Congress should determine whether it is either financially expedient or necessary. With the national debt increasing steadily, a great doubt exists as to the expediency of adding millions more to this debt when the nation needs, at this time, more than anything else, relief from debt and staggering taxes.

Proponents of Federalized Medicine can scarcely reconcile the need for such a system with the recent annual report of the United States Public Health Service. This

report shows that under our present system of medical service, based on private enterprise and initiative, the health of the American people is steadily improving and, at the present time, the United States is the healthiest country of comparable size and population.

Health is recognized as one of the greatest national assets. If the American people, already heavily tax-burdened, can now boast of better health than any other country, we seriously question the expediency and need of a federalized scheme which is a deterrent to a fine quality of medical care, which is expensive and which is often an omen of further socialistic activities.

POLITICS VS. NECESSITY

ONE of the several illustrations of Socialized Medicine, existing in Michigan, is the care of the afflicted child. Efforts to change the existing Act have disclosed the numerous vices developed under the present system.

Evidently medical and surgical needs have not been the determining factors in rendering care to these unfortunate patients. Deficits developing under administration of the Act can only partially be explained by the unpredictable character of sickness. Political intrigue undoubtedly makes appreciable contribution to the deficit factor.

If conscientious economic investigation could be made of every afflicted child case, if medical and surgical necessity were established in every worthy case, those charged with administering the Act would not be forced to suggest changes in the present statute.

Does not the present afflicted child situation in Michigan illustrate the subject of "Politics vs. Medical Necessity"? Is this not a mere sample of what we might expect if we had a general plan of Socialized or Federalized Medicine, with its interposition of political agency between the patient and his physician?

WOMAN'S AUXILIARY

President—Mrs. P. R. Urmston, 1862 McKinley Avenue, Bay City, Michigan
Sec.-Treas.—Mrs. R. E. Scrafford, 2210 McKinley Ave., Bay City, Michigan
Press—Mrs. J. W. Page, 119 N. Wisner Street, Jackson, Michigan

Bay County

The Woman's Auxiliary of the Bay County Medical Society held no regular business meeting during the month of January. This was due to the fact that we sponsored our two Public Relations Meetings on January 12. Dr. Harold A. Miller of Lansing spoke at both meetings on the subject of "Sex Education". A year ago we secured a speaker to talk to all of our high school boys on the subject of syphilis. We were, therefore, anxious to do as much for the high school girls this year. So during the afternoon of January 12, Dr. Miller discussed "Sex Hygiene" before a group of eleven hundred senior high school girls.

In the evening of the same day Dr. Miller spoke again at the Bialy Nurse's Home to a group of two hundred and fifty people.

The Auxiliary met on the evening of February 8, 1939, at the home of Mrs. G. M. Brown. Twenty-five members enjoyed a very fine dinner prepared by our food committee.

Immediately following the dinner we listened to a talk by Dr. Merritt, our County Health Administrator. He discussed the important part that a Health Unit plays at the time of a public catastrophe.

Following Dr. Merritt's speech a short business meeting was held. Each member present was given a copy of the pamphlet "On the Witness Stand" which deals with the facts of Health Insurance. Mrs. Urmston, our State President, stressed the importance of studying this in order that we may each make ourself an intelligent influence in the community on this present day vital question. We plan to devote a part of each future meeting to discussing the subject of Health Insurance.

(Mrs. W. S.) LYNN J. STINSON,
Corresponding Secretary

Calhoun County

The Woman's Auxiliary of the Calhoun County Medical Society met Tuesday, February 7, at Leila Hospital in Battle Creek, to sew for the hospital. Twenty-five members were present and 170 articles were completed. Mrs. Harry Becker, in charge of the day's activities, was assisted by Mrs. W. A. Royer and Mrs. Sherwood Winslow. Lunch was served in the Nurses' Recreation Room, followed by a business meeting, presided over by the president, Mrs. C. G. Wencke. Reports were given of the State Board Meetings in Detroit and Saginaw by Mrs. Wencke and Mrs. L. R. Keagle. Mrs. Becker also gave a report on the Christmas baskets furnished by the Auxiliary. Plans were made for sewing at Community Hospital in March.

Ingham County

Ingham County Medical Auxiliary is indeed proud of its president, Mrs. Vander Zalm. This is her second year of splendid service and we owe much of our activity and enthusiasm to her untiring efforts. Every month brings us new information and entertainment.

December was full of the work of the group, ending at Christmas with donations to the Children's Home and Contagious Hospital.

Meetings have been well planned and the speakers

included such outstanding representative persons as our own member, Mrs. L. G. Christian, State president-elect, Rev. Fr. John Gabriels, Mr. William Burns, and Dr. L. G. Christian. For the last meeting Mrs. Caroline Longyear brought us her firsthand observations of the activities in our national capitol. This meeting was open to the doctors and friends, and the Dutch lunch which followed was greeted with enthusiasm.

In every way the officers and committees are functioning to bring to the Auxiliary, meetings worthy of such a fine group of people.

Jackson County

The regular monthly meeting of the Women's Auxiliary was held Tuesday evening, February 21, at the Hayes Hotel.

Following the dinner, Mrs. R. H. Alter, president, conducted a short business meeting. Routine reports were read at this time.

A musical program had been jointly arranged by Mesdames T. E. Schmidt and F. Van Schoick. Mrs. Bullen, program chairman, introduced the two artists, Mrs. Luther Pahl, violinist, and Mrs. Glen Halik, pianist, who gave the following delightful musical numbers:

Chanson Arabe	Rimsky-Korsakoff-Kreisler
La Fille Aux Cheveau de Lin	De Bussey
Widmung	Mrs. Pahl
Canzonetta	Mrs. Halik
17th Century Dance	D'Ambrosia
Claire de Lune	Anonymous
Malaguena	Mrs. Pahl
.....	Mrs. Halik
.....	De Bussey
.....	Lecuona

The social co-chairmen for the evening were Mesdames Anderson and Chabut.

(Mrs.) ANNA HYDE SHAEFFER,
Press Chairman

Kalamazoo

Mrs. Walter Den Bleyker was hostess to the Woman's Auxiliary of the Academy of Medicine on February twenty-first. Twenty-five members enjoyed a coöperative dinner at six-thirty in the evening.

Following the business meeting, Mrs. Leslie H. Rayle gave an interesting talk on, "Collecting Old Glass", showing many rare and lovely pieces.

(Mrs. Hugo) BARBARA K. AACH,
Publicity Chairman

Kent County

Our last auxiliary was stimulating to say the least. Mr. Leo W. Walsh, an alert, young, Grand Rapids lawyer spoke to us on the ever fascinating subject of our own American government and though needless to say we all did not agree with him, his talk, nevertheless, was well worth hearing.

At the business meeting which was ably conducted by Mrs. Joseph B. Whinery, our vice-president, an announcement was made concerning the hobby show which will take place on April 12 in the home of Mrs. O. H. Gillett, general chairman. Presiding at tea were Mrs. Henry J. Pyle, and Mrs. Harold C. Robinson. Mrs. Daniel DeVries and Mrs. Paul W. Kniskern were hostesses.

JANE R. FRANTZ, *Press Chairman*

Lapeer County

The auxiliary of the Lapeer County Medical Society met at the home of Mrs. H. B. Zemmer on Friday, February 10, for a pot-luck supper, twelve ladies being present. A short business meeting was held after which Mrs. W. B. Kiehle described the work of the Lapeer Credit Bureau of which she has charge. This bureau not only assists the business and professional man to collect money due him but also helps the person in financial difficulties to budget his income so that he becomes free from debts.

The president, Mrs. H. G. Merz, gave each member a pamphlet entitled, "On the Witness Stand—Facts About Health Insurance". This was discussed at the meeting, March 10, when Mrs. F. R. Hanna entertained the Medical Auxiliary.

Mrs. D. J. O'BRIEN, *Press Chairman*

Monroe County

The Woman's Auxiliary of the Monroe County Medical Society had for their February meeting a supper lecture. The speaker was Mr. Rapson, Principal of the Lincoln School, Monroe, who addressed the members on "Juvenile Delinquency."

As our community service project for this winter, the Woman's Auxiliary is placing in the grade schools of the city, copies of children's health playlets. These are being presented at local school assemblies by the children in the lower grades.

It is hoped that with increased Health Habit Propaganda some improvement may be seen in local health conditions.

(Mrs. Vincent) MARTHA BARKER

Washtenaw County

The winter activities of the recently organized Washtenaw County Medical Auxiliary have been varied and well attended by its members.

For their December 12th meeting Mrs. R. Bishop Canfield entertained the group at a very beautiful tea. Unusual arrangements of spring flowers were used about the spacious rooms. Mrs. John Sunwald and Mrs. Albert C. Furstenberg poured.

A former Ann Arbor resident, Mrs. Lawrence Hess of Jackson, spoke on social hygiene before the members and their guests in the terrace room of the Michigan Union at their January 10th meeting. Plans for a benefit bridge in April were discussed as a means for raising funds for their various projects.

Red and white carnations in low ivory holders were used with red tapers at the tables for the formal dinner given by the Medical Society and Auxiliary on February 14th. Gardenias marked the places of the women, most of whom were already wearing their valentine corsages.

After the dinner, served in a private dining room at the Michigan Union, Dr. John W. Kemper, president of the society, spoke briefly on the work of the Auxiliary and introduced its president, Mrs. Karl Malcolm, and Mrs. Geo. Muehlig, secretary and general chairman of arrangements for the dinner.

Dr. A. C. Curtis showed colored motion pictures of a hunting and fishing trip made on Lake Superior. Many of the group later attended the Faculty-Alumni Dance held at the Union.

(Mrs. C. Howard) CECILIA GRAHAM ROSS,
Press Chairman

**MICHIGAN'S DEPARTMENT
OF HEALTH**

DON W. GUDAKUNST, M.D., Commissioner
LANSING, MICHIGAN

**VENEREAL DISEASE DIRECTOR
APPOINTED**

Dr. Thomas E. Gibson, formerly associated with the W. K. Kellogg Foundation in charge of the Van Buren County Health Department, assumed his duties March 1 as director of the Venereal Disease Division of the Michigan Department of Health, it was announced by Dr. Don W. Gudakunst, state health commissioner. In his new position, Dr. Gibson will direct the Department's program for the eradication of syphilis and gonorrhea in Michigan. He succeeds Dr. Russell E. Pleune who recently resigned to accept a position as director of the Houghton-Keweenaw Health Department.

In announcing Dr. Gibson's appointment, the state health commissioner said that all physicians were being notified of the Department's policy regarding laboratory examinations and the distribution of drugs for the treatment of syphilis. Restrictions limiting this service only to indigents have been removed, he said. Blood tests and darkfield examinations for syphilis and microscopic examinations for gonorrhea are now made free of charge for all cases. These examinations are made at the central laboratories in Lansing or at the branch laboratories located at Grand Rapids, Houghton and Powers.

Subsidies have been made to the health departments of the larger cities, said Dr. Gudakunst, which permit them to render the same free service on laboratory examinations. These cities include Detroit, Bay City, Flint, Saginaw, Pontiac, Grand Rapids, Jackson, Kalamazoo and Lansing.

Free drugs for the treatment of syphilis are also available for all practicing physicians. These drugs, including neoarsphenamine, bismuth and mapharsen, are available from full-time county and city health departments or directly from the Michigan Department of Health.

The commissioner urged the prompt reporting of all cases of syphilis. "With the cooperation of the practicing physicians, the hospitals and clinics," said Dr. Gudakunst, "the extent of our problem can be determined and effective control measures organized."

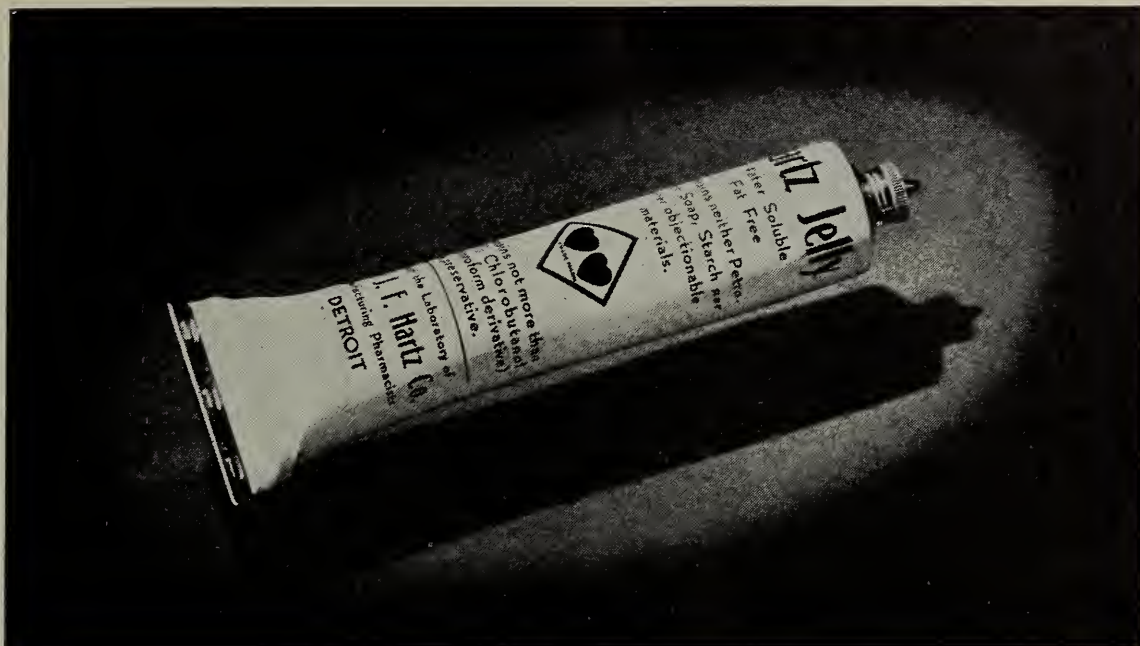
* * *

**SCHOOLCRAFT COUNTY MATERNITY
SERVICE**

The Bureau of Maternal and Child Health has announced plans for the establishment of a maternity service in Schoolcraft County to be carried on in coöperation with the local physicians and under the immediate supervision of Dr. E. J. Brenner, director of the Alger-Schoolcraft Health Department. Physicians wishing to avail themselves of this service for their patients will clear all applications through Dr. Brenner's office at Manistique.

The Schoolcraft County maternity service will be made possible by funds granted to Michigan under the maternal and child health provisions of the Social Security Act. In addition to making it possible for mothers to secure a high standard of

(Continued on page 346)



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soap, starch or other objectionable materials. It contains not more than 0.5% Chlorobutanol (Chloroform derivative) as a preservative. The jelly insures an easy introduction with the least inconvenience to the patient. Price: \$1.50, a dozen tubes.



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medical care, the new service is designed to raise the value of good medical care in the minds of the general public. With this value in health and dollars definitely shown, it is hoped that there will be a greater appreciation of the need for necessary medical care for mothers and children.

* * *

REGIONAL HEALTH CONFERENCES

The second round of Regional Health Conferences with the staffs of the local health departments was begun Friday, February 24, with a very successful meeting at Mt. Pleasant. The sessions were held at Central State Teachers College with Dr. F. R. Town as host. Departments represented at the meeting included Bay, Isabella, Midland, Mecosta-Osceola, Wexford and District No. 7, including Clare, Gladwin and Arenac counties.

The general session in the morning was devoted to a discussion of public health nursing problems, sanitation and industrial hygiene. Following a discussion at luncheon of problems connected with Mexican labor in sugar beet areas, the group broke up in the afternoon for round table discussion of matters of interest to health officers, to nurses and to sanitarians. Group leaders included Dr. Carey P. McCord, director of the Bureau of Industrial Hygiene; Miss Helen Bean, director of the Bureau of Public Health Nursing; and William Cary and LaRue Miller, sanitary engineers.

* * *

UNDULANT FEVER CAUSE FOUND

The undulant fever outbreak resulting in the death of one student and the illness of 48 others at Michigan State College was caused by defective plumbing combined with the use of a faulty sterilizer in the bacteriology laboratory, it has been reported by Dr. A. W. Newitt, in charge of the Bureau of Epidemiology of the Michigan Department of Health.

Back-siphonage of contaminated water from a sink in the basement of the undulant fever laboratory and its spread through the bacteriology building's distributing system to all outlets on the second and third floors has been demonstrated by state sanitary engineers. Glassware used in growing undulant fever cultures was washed at this sink after being removed from a steam sterilizer. Tests indicated that living germs were present on the glassware after it had been in the sterilizer for one hour. This had been considered ample time to kill the germs, Dr. Newitt said, and would have been if the apparatus had functioned properly.

Immediate causes of the outbreak have been corrected and there is now no danger of infection to students working in the laboratories.

* * *

GRAND TRAVERSE TO ORGANIZE HEALTH DEPARTMENT

Grand Traverse County Board of Supervisors voted January 21 to establish a full time county health department. The department will be organized as soon as trained personnel can be obtained and is expected to be in operation by April 1. With the organization of this populous area, there remain but two counties, Leelanau and Benzie, in the northern part of the Lower Peninsula with no full-time health service. Grand Traverse will be the fifty-ninth Michigan county to establish a full-time health department.

IN MEMORIAM

Robert E. Miller, M.D.

Dr. Robert E. Miller, Lansing's oldest physician in point of service, died on March 1, following a long illness. Dr.



Miller was born in New York State in 1869. After graduation from the University of Michigan Medical School in 1890, he began to practice in Lansing. He was also married the same year. Dr. Miller was a past president of the Ingham County Medical Society, and an honorary member of both the County and State Medical Societies. He was an active member of the Masonic Order and was a trustee of the Methodist Church. He is sur-

vived by his wife and son, Dr. Harold A. Miller, who is chairman of the Michigan State Medical Society Legislative Committee.

* * *

George H. Lamley, M.D.

Dr. George H. Lamley of Blissfield, Michigan, died early in March. He was born in 1877. Dr. Lamley attended the University of Michigan Medical School where he was graduated in 1901, and was licensed to practice the following year. He was a member of Michigan State Medical Society and the American Medical Association.

* * *

Charles Roy Davis, M.D.

Dr. Charles Roy Davis of Detroit, died of heart disease in March. Dr. Davis was one of Detroit's outstanding surgeons for nearly thirty years. He was born November 15, 1882, in Fort Madison, Iowa, and came to Detroit in 1910. He was graduated from Ouachita College, Arkadelphia, Arkansas, and from Cornell University Medical College in 1908. He married Miss Marie Schaper of Fort Madison in 1915. Dr. Davis was on the staff of Grace and Parkside Hospitals for sixteen years, and was the first surgeon of the Packard Motor Car Company. He was a member of the Wayne County, Michigan State and American Medical Association, a fellow of the American College of Surgeons, and was a member of the Citizens League, the Detroit Athletic Club and also was a Mason. Dr. Davis was on the faculty of the Wayne University College of Medicine. He leaves his wife, a son, John, and a sister, Mrs. C. P. Phillips.



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Natural Ray is very reasonably priced and is available from Distributors located in the principal cities throughout Michigan. It is bottled at the spring in 2 quart, sterile, green glass containers and in 5 gallon bottles.

Physicians are invited to write for descriptive literature and certified analyses.

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St. Louis

Michigan

Stephen H. Knight, A.M., M.D.

A Tribute by a Lifelong Friend, Dr. Rollin Stevens of Detroit.

It was in the fall of 1889 that my acquaintance and friendship with Stephen H. Knight began, which increased with the years into ever-deepening respect, admiration and love.

How vividly the first meeting stands out in retrospect after the vicissitudes of fifty years in medicine with a friend, confrère, companion and advisor!

I was just out of college, having graduated from the Homeopathic College of the University of Michigan at the inexperienced age of 21 and was just entering upon my life's work as an interne in a new organized hospital. With awe and admiration I gazed at the graduate of Harvard and of the New York Homeopathic Medical College, an experience of several years in a New York Hospital Clinic and a year's experience as the first House Surgeon of Grace Hospital, Detroit.

A short time later I met Mrs. Knight, also a New Englander, and I learned that Dr. and Mrs. Knight had been sweethearts since childhood. It was in their home that I was introduced in characteristic New England fashion to Boston baked beans and brown bread. How delicious they were, especially after the monotonous, tasteless hospital diet!

No one entertained the internes and nurses of the hospital as liberally as the Knights.

One of Dr. Knight's characteristics was a love of nature. And here again was exhibited a congeniality of the life companionship in the common interest in gardening of Dr. and Mrs. Knight. In late years my wife and I enjoyed several happy visits at their island summer home on the Detroit River opposite the Livingstone Channel and we had most interesting conversations concerning the

flowers and trees in their lovely garden and the birds that frequented it. Mrs. Knight was for many years an Officer of the Detroit Garden Club.

Trained in a homeopathic college, and coming to the Grace Hospital in the year of its founding as a homeopathic hospital, Dr. Knight consistently remained loyal to that branch of medicine, continuing always as a faithful member of the American Institute of Homeopathy, as well as, later, a member of the American Medical Association. His education, training and personality won the respect and admiration of men in both branches of medicine so that he worked harmoniously with recognized ethical physicians regardless of their school of thought. While recognizing and utilizing the many scientific advances in diagnosis and therapy of modern times, in general, with these exceptions, he prescribed the homeopathic remedies he had always been accustomed to use.

Though surgery was his specialty he remained until the day of his death the loved family physician—unfortunately an almost obsolete class in metropolitan areas today. So he is mourned by hundreds of families whose children have grown up under his care and who now, even in middle life, have known no other physician.

He was most loyal to Grace Hospital. At the first and nearly all subsequent graduations of nurses he officiated in one capacity or another, always being perhaps the most active member of the Training School Committee.

He was one of the pioneers of more than forty years ago in initiating the addition of clinical programs to the regular monthly business meetings of the medical staff at a time when such programs were unusual for hospitals.

He was Chief of the Medical Staff for many years up to the time of his death, conducting the meetings in good parliamentary form, and rarely did he miss one of the meetings.

Equally loyal to his Alma Mater, Harvard University, he was the oldest and most beloved member of the Harvard Club in Detroit, of which he occupied every office up to trustee. He was elected president several times and was usually called upon to act as toastmaster at the various club functions. Officiating thus was a fine art with him.

Just as devoted was he to the Sons of the American Revolution whose tenets he always held sacred. Nothing riled him more than evasion, belittling or attack upon the Constitution of the United States. No more loyal citizen could be found. Mrs. Knight had kindred interests in the D. A. R.

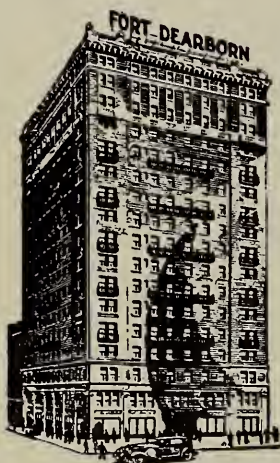
In politics, always an ardent Republican, he naturally had many spirited arguments, both spoken and written, against what he considered the alarming tendencies of present-day federal, state and local government.

Though his church affiliations were Congregational, being a loyal and faithful attendant, again his broad-mindedness was evidenced in his close friendships with those of different religious beliefs.

From his well-stored mind and broad, cultured outlook on life he was able to contribute much to the betterment of Society. In his modest unassuming way in conversation with his friends, both in and out of the medical profession, in public speaking and in writing, he unwittingly contributed to a broader Social Service than that generally implied in that term. It was that which inspired higher ideals and a better philosophy of life in general.

His warm, loyal, devoted friendships will ever remain as an inspiration and a beautiful loving memory to all those who were so fortunate as to have been numbered among the friends of Stephen H. Knight.

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CHICAGO

CORRESPONDENCE

Paul R. Urmston, M.D.,
Chairman of Council of MSMS,
Bay City, Michigan

My dear Dr. Urmston:

At a meeting of the Hillsdale County Medical Society of March 2, there was placed before us the new group hospitalization and medical care program.

As delegate from the Hillsdale County Medical Society, I am aware that many of these plans have already been thoroughly analyzed and discussed before the House of Delegates of the MSMS and I proposed to our society that we go on record unanimously supporting the State organization rather than to support any individual county plans. This motion was carried unanimously and I have been instructed to inform you of our action.

So without any formal resolution, Dr. Urmston, in behalf of the Hillsdale County Medical Society, I wish to state we intend to support and coöperate with you and The Council in whatever plans you may evolve concerning the organization of a hospital and medical care program.

As delegate from this Society, I personally want to offer my support and assistance in whatever capacity I may serve.

Very sincerely yours,

(Signed) LUTHER W. DAY, M.D.

At its meeting of February 7, 1939, the Calhoun County Medical Society unanimously adopted the following resolution in appreciation of the enormous amount of work being and having been done by The Council of the Michigan State Medical Society and the Committee on Distribution of Medical Care:

WHEREAS, a tremendous amount of work is being done by The Council and committees relative to insurance plans and

WHEREAS, the membership of the Society must demonstrate faith in these groups,

BE IT RESOLVED, that this Society go on record as endorsing the action and efforts of The Council and Committee on Distribution of Medical Care in connection with the development of Hospital and Medical Service Plans and that this Society accord The Council and Committee a vote of confidence in their work and efforts.

* * *

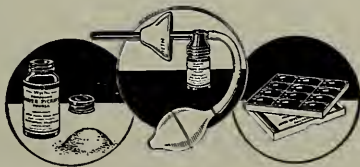
Letters re House Bill 215 have been received from various state organizations. The Chairman of the Legislative Committee of the Michigan State Nurses' association comments on House Bill 215 as follows: "I personally have been interested in this means of decreasing the cost of medical care for a good many years, and I hope that the principle can be applied to nursing eventually. I have discussed the advisability of asking for an enabling act for nursing at this session of the Legislature with other members of the Michigan State Nurses' Association, and we have decided to postpone such a request until the next session of the Legislature.

"There are several reasons for this decision; First of all, we do not wish to do anything to

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—and multiply these amounts of milk, water
and HYLAC by the weight of the baby.

Example

Baby's Weight 10 lbs.	Baby's Weight 12 lbs.
YOUR PRESCRIPTION	YOUR PRESCRIPTION
15 ozs. Milk	18 ozs. Milk
10 ozs. Water	12 ozs. Water
10 measures HYLAC	12 measures HYLAC
(a 4-gram measure is contained in each can of HYLAC)	

Result

YOUR PRESCRIPTION	COMPARED WITH HUMAN MILK	
Fat	3.0%	3.5%
Carb.	6.1%	6.5%
Prot.	2.0%	1.5%
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jeopardize the passing of the bills for hospital and medical prepayment plans; secondly, we think it will be wiser to profit by the experience of these two groups before setting up a plan for nursing."

* * *

MICHIGAN STATE PHARMACEUTICAL ASSOCIATION

March 16, 1939

Michigan State Medical Society
2020 Olds Tower Building
Lansing, Michigan

Attention: Mr. William J. Burns
Executive Secretary

Dear Mr. Burns:

Replying to your communication regarding the inclusion of pharmaceutical services in the provisions of H.B. 215. We have given the matter much thought and consideration and are of the opinion that it would be inadvisable to write such provisions into the Act at this time.

Section II, Lines 10, 11 & 12, clearly provide that such a program can be perfected and included in the medical care plan to be undertaken, if and when it seems practical to do so in the future. We wish it most definitely understood that we subscribe to the intents and purposes of the bill in question and we congratulate your society on so courageously accepting this great responsibility to provide medical care to the great number of people who will benefit thereby.

Very truly yours,

(signed) OTIS F. COOK,
Executive Secretary.

* * *

March 21, 1939

Mr. William Burns, Executive Secretary
Michigan State Medical Society
Lansing, Michigan

Dear Mr. Burns:

The members of the Board of Trustees of the Michigan Hospital Association have gone over the provisions of House Bill No. 215 providing for group medical care, and have officially expressed their whole-hearted support of this bill.

Very truly yours,

(Signed) ROBERT G. GREVE, *Secretary*,
Michigan Hospital Association.

* * *

March 8, 1939

The Council,
Michigan State Medical Society
2020 Olds Tower
Lansing, Michigan
Gentlemen:

The Council of The Wayne County Medical Society, at its meeting of Friday, March 3, 1939, went on record expressing its warm support of the State Society Program of Voluntary Medical Insurance and its action in coöperation with the Hospital Insurance Plan.

The Council desires to record its interest in the establishment of an appropriate Voluntary Insurance Program in Wayne County as soon as circumstances indicate the feasibility of so doing.

Respectfully yours,

(Signed) J. A. BECHTEL,
Executive Secretary,
Wayne County Medical Society.

JOUR. M.S.M.S.

Among Our Contributors

Dr. Carl D. Camp was graduated from the University of Pennsylvania in 1902 and was Instructor in Neurology at the University of Pennsylvania from 1904 to 1907. He has been in charge of the Department of Neurology in the University of Michigan Medical School since 1907.

* * *

Dr. Lawrence S. Fallis was graduated in Medicine, Queen's University, Kingston, Canada, 1919. He received his postgraduate training, London, Edinburgh, and Vienna. He is Fellow of the Royal College of Surgeons, Edinburgh, 1924; Fellow of the American College of Surgeons, 1928; Member of the Founders' Group of the American Board of Surgery, 1937; Associate Surgeon in the General Surgical Division of the Henry Ford Hospital since 1924.

* * *

Dr. L. E. Himler is a graduate of the University of Michigan Medical School, class of 1931. He was instructor in Neurology at the University Hospital from 1933 to 1935, and at present is associate psychiatrist at the University of Michigan Health Service.

* * *

Dr. Paul W. Kniskern is a graduate of the University of Michigan Medical School, class of 1927. He spent three years at the University of Michigan Hospital, the University of Chicago Clinic and the Blodgett Hospital, Grand Rapids.

He located in Grand Rapids in 1930 and his practice is limited to internal medicine.

* * *

Dr. Clyde S. W. Martin is a graduate of the Medical School of the University of Nebraska, 1934. He was Interne and Assistant Resident Surgeon at the Henry Ford Hospital, 1934-37. Since 1937, he has been in private practice in Port Huron where he is a member of the staff of the Port Huron General Hospital.

* * *

Dr. Gordon B. Myers was graduated from the University of Michigan in 1927. He is professor of Medicine at Wayne University College of Medicine, and Director of Medicine, City of Detroit Receiving Hospital.

* * *

Dr. David P. Philips of Jackson, Michigan, was graduated from the Medical Department of Ohio State University in 1916. He served in the Neuropsychiatric division during the World War, also did psychiatric and criminological work in Illinois, Ohio, New York and Pennsylvania. He is now attached with the Department of Correction, Michigan.

* * *

Dr. Roger S. Siddall received the degree of M.D. in 1920 from Johns Hopkins University. He is Assistant surgeon in the department of Obstetrics and Gynecology at Harper Hospital, Consultant in Obstetrics at the Herman Kiefer Hospital, and is Assistant Professor of Clinical Obstetrics and Gynecology at Wayne University, Detroit.



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◆ General News And Announcements ◆

100 Per Cent Club for 1939

Ingham County Medical Society
Luce County Medical Society
Manistee County Medical Society
Menominee County Medical Society
Muskegon County Medical Society
Ontonagon County Medical Society
Tuscola County Medical Society

Other County Medical Societies are near the 100 per cent mark—being out of the honorary club by just one or two members not having paid 1939 dues. Help your society to be in the 100 per cent Club.

Senator Carl F. Delano of Kalamazoo addressed the St. Joseph County Medical Society at its meeting on March 9th on the subject of "Coming Legislation."

* * *

Senator Earl W. Munshaw of Grand Rapids was guest speaker at the joint meeting of the Bay County Bar Association and Bay County Medical Society on March 8.

* * *

The fiftieth annual reunion and clinic of the Alumni Association of the Wayne University College of Medicine will be held in Detroit, Wednesday, Thursday and Friday, June 14, 15, and 16. A very interesting program is being prepared. It will be given in full in the May number of this JOURNAL.

* * *

Radio programs were sponsored by the Michigan State Medical Society Radio Committee during the past few weeks as follows:

March 13, 1939—"Legislative Aspects of the Medical Care Plan" by R. Lee Laird, M.D.
March 20, 1939—"Obesity" by Neil Whalen, M.D.
March 27, 1939—"Low Back Pain" by Frederick C. Kidner, M.D.

* * *

The Cliff Dweller, a progressive and wholesome newspaper in Detroit, in its issue of March 1, 1939, carried a worthwhile article entitled "Americans are Healthiest People in World." It gives the need as a voluntary health insurance plan, and emphatically states that Americans do not want compulsory sickness insurance. It goes into detail giving the fallacies of politically controlled medical care.

* * *

The secretaries of the county medical societies in the Upper Peninsula attended the Upper Peninsula Secretaries Conference at Marquette, on Sunday, March 26. Secretary L. Fernald Foster of Bay City and Executive Secretary Wm. J. Burns were present. The chairman of the Public Health Committee in the Michigan House of Representatives, Warren G. Hooper, was a guest at the Conference.

* * *

The new \$400,000 Neuropsychiatric Institute at the University of Michigan will house eighty-three beds, twenty of which will be reserved for children. It will contain the most modern equipment for treating mental disorders. Psychiatric institutes similar

to the one now under construction here are located at the Columbia University Medical Center, Cornell Medical Center, University of Iowa, University of Colorado, and Johns Hopkins.

* * *

Senior and Student Internes are wanted by the California State Personnel Board for vacancies in their state institutions. There is no residence requirement for these examinations and no written test will be given. Applicants will be rated on education, experience and appraisal of scholastic record. Applications may be filed at any time during 1939, and will be rated immediately. If you are interested in further information, write State Personnel Board, 1025 P Street, Sacramento, California.

* * *

On petition of thirty-one physicians, the Van Buren County Medical Society was granted a charter by The Council of the Michigan State Medical Society. The Society is now organized and has elected the following officers for the coming year:

President—William Bope, M.D., Decatur.
President Elect—R. W. Spalding, M.D., Gobles.
Secretary—Charles Ten Houten, M.D., Paw Paw.
Treasurer—A. H. Steele, M.D., Paw Paw.
Delegate—Wm. R. Young, M.D., Lawton.
Alternate Delegate—Edwin R. Terwilliger, M.D., South Haven.

* * *

If you are in an office with one or more physicians and each of you is a Fellow of the American Medical Association, it is likely that all of you receive copies of the *AMA Journal*. We are informed by the American Medical Association that in cases of that kind other scientific publications of the AMA may be substituted for the *Journal*. By this arrangement, one man in the group could elect to take the *Journal*, the others could take some other publications, thus affording that office access to two or more of the several AMA publications without extra cost.

* * *

Crippled and Afflicted Child Commitments for February, 1939, were as follows:

Crippled Child: Total cases, 224, of which 57 were sent to University Hospital and 167 to miscellaneous hospitals. Of the above, Wayne County sent 6 to University Hospital and 48 to miscellaneous hospitals, total of 54 cases.

Afflicted Child: Total cases 1,903, of which 287 went to University Hospital and 1,696 went to miscellaneous hospitals. Of the above 24 were sent to University Hospital and 335 went to miscellaneous hospitals from Wayne County for a total of 359.

* * *

The Annual Spring Clinic of the Ingham County Medical Society will be held at the Hotel Olds, Lansing on May 4th. All members of the Michigan State Medical Society are cordially invited to attend this unusually worthwhile program. The following outstanding physicians will speak:

Louis A. Buie, M.D., Rochester, Minn.
William R. Cubbins, M.D., Chicago.
Richard H. Freyberg, M.D., Ann Arbor.
William E. Leighton, St. Louis, Mo.
Claire L. Straith, M.D., Detroit.
Warren E. Vaughan, M.D., Richmond, Va.

The Wexford County Medical Society held a special meeting on March 7, 1939, at the Northwood Hotel, Cadillac, which was a joint meeting of dentists and physicians. Shattuck W. Hartwell, M.D., of Muskegon and E. F. Sladek, M.D., of Traverse City, MSMS Councilor of the 9th District, were guest speakers. Doctor Hartwell gave an especially fine talk on "Distribution of Medical Care."

"The Wagner Health Bill" was discussed by Doctor Sladek, with its effects on the physicians, dentists and pharmacists. He urged all members present to write personal, longhand letters to their congressmen to help defeat this bill.

* * *

Dr. Clark D. Brooks of Detroit spent part of the winter in St. Petersburg, Florida. While visiting in Florida, Dr. Brooks addressed the Pinellas County Medical Society, on February 17, on the subject, "Surgery of the Gallbladder." There were seven Michigan doctors in attendance at the meeting in addition to a large number of Army and Navy officials, who visit St. Petersburg regularly. They have one of the largest Veteran units in the country, situated on the gulf, which is an ideal location, Dr. Brooks writes. They have accommodation for over a thousand veterans and are making plans now to build an addition.

* * *

Some more of your friends who displayed their products and services at the 1938 Detroit Convention last September. When you have an order, don't forget your friends

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Frederick Stearns & Company, Detroit, Michigan.
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* * *

The American Congress on Obstetrics and Gynecology will be held in Cleveland, Ohio, September 11 to 15, 1939. This Congress is sponsored by the American Committee on Maternal Welfare. Purpose of the program is to present state medical, nursing and health problems from the scientific, practical, educational and economic viewpoints so far as they relate to human reproduction and maternal and neonatal care. The program and exhibits will be presented in such a manner that they will be of value not only to the medical profession but to nurses and all persons and agencies concerned with the problems of human reproduction. Further information may be secured by writing the American Congress on Obstetrics and Gynecology, The Annex, 650 Rush Street, Chicago.

* * *

Michigan physicians were authors of the following articles appearing in recent issues of *The Journal of the American Medical Association*:

"Transurethral Prostatectomy" by R. M. Nesbit, M.D., Ann Arbor, issue of February 25, 1939.

"Fatal Granulocytopenia Following Administration of Sulfanilamide" by H. A. Sheket, M.D., and A. E. Price, M.D., Eloise, Michigan, in the issue of March 4, 1939.

"Treatment of Pneumococcic Pneumonia with Sulfanilamide" by A. E. Price, M.D., and Gordon

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SURGERY—General Courses One, Two, Three and Six Months; Two Weeks' Intensive Course in Surgical Technique with practice on living tissue; Clinical Courses; Special Courses. Courses start every two weeks.

GYNECOLOGY—Two Weeks' Course, June 5th and October 9th. Two Weeks' Personal Course, June 19th. Four Weeks' Personal Course, August 28th.

OBSTETRICS—Two Weeks' Intensive Course, June 19th and October 23rd. Informal Course every week.
FRACTURES & TRAUMATIC SURGERY—Ten-day Formal Course, June 19th and September 25th. Informal Course every week.

OTOLARYNGOLOGY—Two Weeks' Intensive Course starting September 11th. Informal Course every week.

OPHTHALMOLOGY—Two Weeks' Intensive Course starting September 25th. Informal Course every week.
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B. Myers, M.D., of Detroit, in the issue of March 18, 1939.

"Citizenship and Medical Licensure" by J. Earl McIntyre, M.D., Lansing, appeared in the issue of March 18, 1939.

* * *

The 1939 Upper Peninsula Medical meeting will held at Escanaba on August 23 and 24. The tentative program is as follows:

Wednesday

12:00 to
2:00 p.m.—Luncheon in honor of MSMS Officers.
2:00 p.m.—Henry F. Helmholtz, M.D., Rochester, Minn.
3:00 p.m.—J. Arthur Myers, M.D., Minneapolis, Minn.
4:00 p.m.—L. G. Christian, M.D., Lansing.
7:00 p.m.—W. W. Bauer, M.D., Chicago.

Thursday

10:00 a.m.—Talk on fractures.
11:00 a.m.—Henry R. Carstens, M.D., Detroit.
12:00 a.m.—John T. Murphy, M.D., Toledo.

All members of the Michigan State Medical Society are cordially invited and urged to attend.

* * *

The American Physicians' Art Association, composed of members in the United States, Canada, and Hawaii, will hold its second Art Exhibit in the City Art Museum of St. Louis, May 14-20, 1939, during the annual session of the American Medical Association. Art pieces will be accepted for this art show in the following classifications; (1) oils, both (a) portrait and (b) landscape; (2) water colors; (3) sculpture; (4) photographic art; (5) etchings; (6) ceramics; (7) pastels; (8) charcoal drawings; (9) book-binding; (10) wood carving, (11) metal work (jewelry). Practically all pieces sent in will be accepted. There will be over 60 valuable prize awards. For details of membership in this Association and rules of the Exhibit, kindly write to Max Thorek, M.D., secretary, 850 Irving Park Blvd., Chicago, Ill., or F. H. Redewill, M.D., president, 521-536 Flood Bldg., San Francisco, Calif.

* * *

The following resolution was adopted by the Legislative Committee at its meeting in Lansing on March 21, 1939:

WHEREAS, The Legislative Committee of the Michigan State Medical Society is the official legislative contact group of the Society so designated by the By-laws of the Michigan State Medical Society,

BE IT RESOLVED, That only the Chairman of the Legislative Committee, Harold A. Miller, M.D. (and his delegated representative or representatives) is hereby authorized to be the official spokesman in all legislative matters for the Legislative Committee and for the entire 4,300 members of the Michigan State Medical Society.

FURTHER, That copies of this resolution be sent to the secretaries and editors of all county medical societies in Michigan, and that it be published in THE JOURNAL, M.S.M.S.

* * *

The American Association of Obstetricians, Gynecologists and Abdominal Surgeons announces that the annual Foundation Prize for this year will be \$100.00. Those eligible include only (1) internes, residents, or graduate students in Obstetrics, Gynecology and Abdominal Surgery, and (2) physicians (M.D. degree) who are actually practicing or teaching Obstetrics, Gynecology or Abdominal Surgery.

Competing manuscripts must (1) be presented in triplicate under a nom-de-plume to the Secretary

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of the Association before June 1st, (2) be limited to 5,000 words and such illustrations as are necessary for a clear exposition of the thesis, and (3) be typewritten (double-spaced) on one side of the sheets, with ample margins.

The successful thesis must be presented at the next annual (September) meeting of the Association, without expense to the Association and in conformity with its regulations.

For further details, address Dr. James R. Bloss, Secretary, 418 11th Street, Huntington, W. Va.

* * *

Jack King, well-known news commentator on WJR, the Goodwill Station, gave the following announcement in his broadcast of February 20 after House Bill 215, which provides for non-profit voluntary group medical care plans, was introduced into the Michigan Legislature: "The Michigan State Legislature saw the start today of what may mean the eventual lowering of the cost of medical attention and care for this state's individuals. A bill embodying the recent proposals of the Michigan

State Medical Society, for the formation of voluntary group medical care associations, was introduced by Representatives Dora Stockman, James Stanley and Warren Hooper. The proposed measure (House Bill 215) calls for wider distribution of medical care through non-profit corporations. This care would be given those subscribers who pay a fixed monthly or annual fee. This proposed action may prove a beneficial major long-range accomplishment of this 1939 legislature and one that is highly commendable."

* * *

The Northern Tri-State Medical Association held its annual meeting in South Bend, Indiana, April 11, 1939, at the Hotel Oliver. The speakers on the program were as follows:

Charles G. Johnston, M.D., Professor of Surgery, Detroit College of Medicine—"Physiological Implications in the Management of Intestinal Obstruction."

Waldo E. Nelson, M.D., Department of Pediatrics, College of Medicine, University of Cincinnati—"The Treatment of Diabetes Mellitus in Children."

Frank C. Walker, M.D., Indianapolis, Indiana—"The Relation of Cervical Lesions to Carcinoma of Cervix Uteri."

Daniel P. Foster, M.D., Physician in Charge, Division of Metabolism, Henry Ford Hospital—"Newer Concepts of Diabetes Mellitus."

Harold N. Cole, M.D., Clinical Professor of Dermatology and Syphilology, Western Reserve University School of Medicine—"Relapse in Syphilis, Its Importance in Diagnosis, the Public Health Aspect, and Its Treatment."

A. C. Furstenberg, M.D., Dean and Professor of

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GENERAL NEWS AND ANNOUNCEMENTS

Otolaryngology, University of Michigan Medical School—"Nasal Accessory Sinus Disease in the General Practice of Medicine."

Bruce K. Wiseman, M.D., Associate Professor of Medicine, Ohio State University College of Medicine—"The Cytolytic Functions of the Spleen in Relation to the Blood Diseases."

Norris W. Gillette, M.D., Toledo, Ohio—"Diagnosis and Results of Treatment of Toxic Goitre."

A. Jerome Sparks, M.D., Fort Wayne, Indiana—"Calculi in the Upper Urinary Tract."

David Edwin Robertson, M.D., Assistant Professor of Surgery, University of Toronto—"The Standard Treatment of Infantile Paralysis."

George B. Eusterman, M.D., Clinical Section, Mayo Clinic, Rochester, Minnesota—"Chronic Inflammatory Lesions of the Gastric and Duodenal Mucosa: Their Significance in Medical Practice."

* * *

Industrial Physicians and Surgeons

At the meeting of the Michigan Association of Industrial Physicians and Surgeons to be held at Hotel Olds, Lansing, Wednesday, April 19, 1939, the following program will be presented:

Program

Registration 9:00 A. M.

1. Medical Testimony.
 - E. I. Carr, M.D., Lansing.
 - C. F. Jennings, LL.B., Lansing.
 - Shields, Ballard, Jennings & Tabor.
2. Medical Relations in Industrial Surgery.
 - Frank T. McCormick, M.D., Detroit.
3. a. The Michigan Fracture Committee of the American College of Surgeons.
 - b. McMurray Operation for Ununited Fractures of Neck of the Femur with Lantern Slides.
 - Wm. C. Blodgett, M.D., Detroit.

Associate Professor Orthopedics, Wayne University.

4. Problems in the Application of Occupational Diseases under the Michigan Law.

Col. John L. Boer,

Secretary, Department of Labor and Industry.

5. Rehabilitation of the Industrially Disabled.

(Vocational Training and New Occupations)

Jacob Klaassen,

State Supervisor of Vocational Rehabilitation.

* * *

Wayne University Fiftieth Anniversary

Fellow Alumni:

I have been looking over the plans for our Annual Alumni Clinics. They are exceptionally inviting this year because, as you know, it marks our fiftieth meeting. This year's clinics and reunions have been planned to be a grand Fiftieth Anniversary celebration of an annual event which we all have grown to regard as the high point of each medical year.

This year the faculty of our medical school will present the program as was done last year with such great success. Their presentations will be of scientific but also of practical value to men in practice.

The reunions this year have been especially well organized. Throughout the year contact men in each class have been appointed and through them the classes have been working out their class celebrations. Class reunions will occupy a prominent part in commemoration of this Anniversary and I want to urge all those who are coming to get in touch with their class secretaries or the Secretary of Wayne University College of Medicine Alumni Association, Volney Butler, M.D.

The next two months are going to be exceedingly

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full in making final preparations, but in June we will all have a splendid time together again.

Sincerely yours,

FRED H. COLE, M.D., *President*
Alumni Association, Wayne University
College of Medicine.

* * *

American Congress on Obstetrics and Gynecology

Committee on Maternal and Infant Welfare

The American Congress on Obstetrics and Gynecology is sponsored by the American Committee on Maternal Welfare. This Committee is composed of member organizations with a representative from each, forming the Board. The member organizations include the various national and sectional obstetrical and gynecological associations, hospital associations, public health organizations, and nursing associations.

The Central Association on Obstetrics and Gynecology proposed an American Congress on Obstetrics and Gynecology to study the present-day problems on obstetrics and gynecology and their solution. The American Committee on Maternal Welfare was asked to sponsor this Congress. The Congress will be held in Cleveland, Ohio, September 11-15, 1939. The Committee expresses the purpose of the Congress, "To present a program of our present-day medical, nursing, and health problems, from a scientific, practical, educational, and economic viewpoint as far as they relate to human reproduction and maternal and neonatal care." This Congress is not in any sense a legislative body and naturally will take no action relative to maternal and infant care.

There will be sessions for each professional group in the morning with round-table discussions. The afternoon meetings will have papers of general interest to all members attending the Congress. The public will be invited to the evening sessions, where there will be speakers of national prominence.

The program for the physicians will include among many others such subjects as pregnancy associated with: thyroid disease, heart disease, diabetes, tuberculosis, nutritional factors, carcinoma of the female genital tract, and abortions.

The Congress is not planned as a meeting for specialists in any sense of the word but for all physicians who are interested in the problem of maternal and child welfare. Your Committee highly recommends this Congress as a week of postgraduate work which should be worth while much more to the physician than the time and expense incurred for the trip. The physicians of this state should be well represented at this Congress.

The membership fee of \$5.00 includes membership in The American Committee on Maternal Welfare and registration in The American Congress on Obstetrics and Gynecology. Application blanks and further information may be secured from your chairman, or from The American Congress on Obstetrics and Gynecology, 650 Rush Street, Chicago, Illinois.

* * *

Michigan Pathologists Meet

The regular meeting of the Michigan Pathological Society was held at the Henry Ford Hospital, Detroit, Michigan, February 11, 1939. Demonstration material was presented in one of the laboratories of the teaching building. Members displayed a collection of "Problem Cases." A scientific program was announced by the president, Dr. O. W. Lohr.

Dr. Frank W. Hartman presented an excellent paper illustrated with lantern slides, the title of which was "Certain Lesions of Anoxia in Experimental Animals and in Man." The paper was discussed by Dr. G. Steiner, Dr. M. Gates, and Dr.

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C. Weller. Dr. A. H. Ahronheim presented a case of multiple peripheral hemorrhages with gangrene in a child, which he felt should be classified as purpura hemorrhagica. The appearance of peripheral thrombi in the arteries seemed, however, to be the chief pathological problem, not conforming with the diagnosis of essential purpura. Dr. M. Madsen presented two cases of adrenal hypertrophy in infants associated with vomiting and malnutrition. In discussion Dr. O. M. Gruhitz mentioned that in guinea pigs similar lesions of the adrenals accompany scurvy. Dr. Weller thought that the adrenal changes were a persistence of fetal type adrenals although this probably threw no light on the pathogenesis of the syndrome. Dr. O. W. Lohr showed a case of lung and retroperitoneal tumors. The problem involved concerned the question of a primary. The tumor cells were phagocytic for polymorphonuclear leukocytes. Dr. R. J. Parsons presented a case of pulmonary tuberculosis with military dissemination. In one adrenal a caseous granulomatous lesion was observed which was atypical histologically for tuberculosis and from which acid-fast microorganisms were not demonstrable. However, in this lesion, peculiar yeast-like intracellular lesions were found in both parenchymal and macrophage cells which were identified as *Histoplasma capsulata* (Darling). Dr. Wilhelm demonstrated a case diagnosed as Kaposi's multiple hemorrhagic sarcoma. In discussion there was some controversy concerning the histogenesis of this neoplasm, some thinking that morphologically it resembled chorioepithelioma. Dr. G. R. Backus demonstrated an interesting case of muscle atrophy and paralysis which he diagnosed as amyotrophic lateral sclerosis. Dr. F. W. Hartman and Dr. Kerr demonstrated material from a case of human rabies with proof of the nature of the disease by guinea pig inoculation. Beautiful Negri bodies were seen in the guinea pig brain preparations. Dr. J. Kasper had taken part in the guinea pig inoculation experiments. The business meeting followed, after which the meeting was adjourned.

The next meeting is to be held on April 15, 1939, at the William Seymour Hospital, Eloise, Michigan. Subject will be "Pathology of the Kidney" with special emphasis on tumors. This meeting will be held as a joint meeting with the Detroit chapter of the American Urological Association. All interested are invited to attend. Specimens will be on display at 3:00 in the afternoon. Dinner will be served at about 6 o'clock and a scientific program will follow the dinner.

* * *

Physicians who have addressed county medical societies and lay groups during the past month include:

L. Fernald Foster, M.D., Bay City, discussed "Federalized Medicine" before the Manistee County Medical Society at noon on February 20. At 3:00 p.m. Doctor Foster addressed the Lakeside Woman's Club on the same subject.

Wm. Welch, M.D., Lansing, addressed the Clinton County Medical Society on the subject of "Surgical Treatment of Peptic Ulcers," illustrated with a moving picture, on February 28. Paul H. Jordan, M.D., Ann Arbor, addressed the same meeting on "Some Phases of Child Psychology."

C. E. Merritt, M.D., Bay City, addressed the YMCA Mothers of Saginaw and Bay City at Bay City on March 1, on the subject of "Socialized Medicine."

Norman R. Kretschmar, M.D., Ann Arbor, discussed "The Radiation Therapy of Benign Uterine Bleeding," before the Oakland County Medical Society on March 1.

C. S. Tarter, M.D., Bay City, addressed the Wex-

ford County Medical Society on March 2, on the subject of "Fractures of the Femur."

Burton R. Corbus, M.D., Grand Rapids, discussed "Federalized Medicine" before the Kalamazoo Lions Club on March 7, in Kalamazoo.

Shattuck W. Hartwell, M.D., Muskegon, addressed the Cadillac Rotary Club on March 7, on the subject of "Federalized Medicine."

L. Fernald Foster, M.D., Bay City, spoke on "What Federalization Means to the Professions of Medicine and Dentistry" before the 8th District Dental Meeting in Bay City on March 15. Doctor Foster addressed the Michigan Association of University Women of Bay City on "Federalized Medicine" on the same date.

M. Edward Davis, M.D., Chicago, presented a paper on "Present Day Diagnosis and Treatment of Hemorrhage Late in Pregnancy" before the Berrien County Medical Society on March 16.

Wells Thom, M.D., gave a talk on "Medical Practice in Arabia" on March 16, at the meeting of the Eaton County Medical Society.

Wm. J. Cassidy, M.D., Detroit, talked on "Surgical Procedures" before the Monroe County Medical Society on March 16.

W. D. Towsley, M.D., and N. R. Kretschmar, M.D., of Ann Arbor, presented papers at the Shiawassee County Medical Society meeting on March 16. Doctor Towsley discussed Inter-Uterine Respiration, illustrated by colored pictures, and Doctor Kretschmar spoke on "Toxemias of Pregnancy."

Robert S. Breakey, M.D., Lansing, spoke before the Lenawee County Medical Society on the subject of "Urinary Tract Calculus," on March 21.

Plinn F. Morse, M.D., Detroit, discussed "Sudden Causes of Death" before the Ingham County Medical Society, on March 21.

Richard Davison, M.D., Chicago, addressed the Kalamazoo Academy of Medicine on March 21, on the subject "Surgical Treatment of Pulmonary Tuberculosis."

Lawrence Reynolds, M.D., of Detroit, appeared before the Jackson County Medical Society, on March 21, and discussed "Cystic Disease of the Lung."

E. D. Spalding, M.D., Detroit, presented a paper on "Heart Conditions" before the Bay County Medical Society, on March 22.

Harold Henderson, M.D., Detroit, addressed the St. Clair County Medical Society on the subject of "The Middle-aged Woman," at its meeting of March 28.

* * *

Group Hospitalization

The Michigan Society for Group Hospitalization is located in the Washington Boulevard Building under the directorship of Mr. John R. Mannix. The officers are: President, William J. Griffin, Attor-

ney; Vice President, Stewart Hamilton, M.D.; Treasurer, W. L. Babcock, M.D. The trustees are Howard A. Coffin, Percival Dodge, Rev. J. L. Ernst, Charles E. Findlay, Walter S. Foster, Robert C. Greve, Leon Harrington, Ralph M. Hueston, Rev. Joseph McIsaac, I. R. Peters and Mrs. George Wadley. The participating hospitals to date (March 20) are: R. B. Smith Memorial Hospital at Alma; St. Joseph's Mercy Hospital and the University Hospital, Ann Arbor; the Leila Y. Post Montgomery Hospital, Battle Creek; Mercy Hospital of Bay City; Alexander Blain Hospital, Children's Hospital, Delray General Hospital, East Side General Hospital, Evangelical Deaconess Hospital, Florence Crittenton, Grace, Harper, Henry Ford, Mt. Carmel Mercy, Parkside, Providence, St. Joseph's Mercy, St. Mary's, Woman's and Trinity Hospitals, Detroit; Lee Memorial Hospital, Dowagiac; Eloise Hospital and Infirmary, Eloise; Hurley Hospital, St. Joseph's Hospital, Women's Hospital, Flint; Goodrich General Hospital, Goodrich; Grayling Mercy Hospital, Grayling; St. Joseph's Hospital, Hancock; Oceana Hospital, Hart; Highland Park General Hospital, Highland Park; McPherson Memorial Hospital, Howell; Mercy Hospital, Jackson; Borgess Hospital and Bronson Methodist Hospital, Kalamazoo; Edward W. Sparrow Hospital, St. Lawrence Hospital, Lansing; the Paulina Stearns Hospital, Ludington; Mercy Hospital and Sanitarium, Manistee; St. Luke's Hospital, Marquette; Monroe Hospital, Monroe; Petoskey Hospital, Little Traverse Hospital, Petoskey; Pontiac General and St. Joseph's Mercy Hospitals, Pontiac; Saginaw General, St. Luke's and St. Mary's Hospitals, Saginaw; St. Joseph Sanitarium, St. Joseph; Chippewa County War Memorial Hospital, Sault Ste. Marie; Wyandotte General Hospital, Wyandotte; Beyer Hospital, Ypsilanti. More hospitals will be included in the list by the time this JOURNAL is in the hands of the readers.

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* * *

Estimate 48,000,000 Cases of Trichinosis in the United States

The recent evidence from autopsies that 36 per cent of the inhabitants of Cleveland have trichinosis must not be interpreted as proof that that city is the most highly infested area in the United States, *The Journal of the American Medical Association* for March 18 says.

Such evidence suggests rather that the routine diagnostic methods employed by earlier investigators are fallacious, *The Journal* points out. Routine examinations of the diaphragms of adult cadavers by the Baermann digestion method has led previous investigators to the conclusion that approximately 13.67 per cent of all persons in or around Washington, D. C., are infested with trichinae, 17.5 per cent in Minneapolis and Rochester, N. Y., 24 per cent in San Francisco and 27.6 per cent in Boston.

The editorial states that C. H. Evans, M.D., of the Institute of Pathology, Cleveland, supplemented this routine diagnostic method by application of a newer technic. Combining all positive data, Evans found thirty-six positive cases of trichinosis in the first hundred Cleveland autopsies studied by his double technic.

"Applying the implied correction coefficient to the percentages previously reported from other cities," the editorial says, "one would conclude that there are presumably the following percentages of trichina infestation in other American cities: Washington, D. C., 24.6 per cent, Minneapolis and Rochester, N. Y., 31.5 per cent, San Francisco 43 per cent and Boston 49.7 per cent, an average of 37 per cent infestation of the urban population of the United States.

"There is no way, of course, of estimating the resulting social or economic loss; but the estimated 48,000,000 cases of trichinosis in the United States are far from being a national asset."

* * *

COUNCIL AND COMMITTEE MEETINGS

1. Sunday, March 12, 1939—Public Relations Committee—Hotel Olds, Lansing—4:00 p. m.
2. Sunday, March 19, 1939—Executive Committee of The Council—Hotel Statler, Detroit—2:00 p. m.
3. Sunday, March 19, 1939—Committee on Scientific Work—Hotel Statler, Detroit—1:00 p. m.
4. Tuesday, March 21, 1939—Legislative Committee—Hotel Olds, Lansing—6:00 p. m.
5. Wednesday, March 22, 1939—Maternal Health Committee—Hotel Statler, Detroit—12:00 noon.
6. Tuesday, March 28, 1939—Medical-Legal Committee—Hotel Olds, Lansing—6:00 p. m.

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CERTAIN CARDIORENAL CIRCULATORY CORRELATIONS*

HENRY A. CHRISTIAN, M.D.

Boston, Massachusetts



H. A. CHRISTIAN

Heart and kidney have a two-way relationship so far as circulation is concerned: with failing heart, renal function decreases; with failing kidney, heart function decreases. Starting with these theses, let me develop the idea of a closely interwoven cardiorenal circulatory correlation.

Simple study of the urine by methods familiar to all, and used by almost all, physicians give an insight into these correlations. The simple study of the urine, to which I refer, consists of determining its specific gravity, crudely estimating the amount of albumin and inspecting under

the microscope the sediment from a centrifuged specimen for the presence and types of casts and cells, all of which can, and should be, carried out in the office of the general practitioner. The other aspect of the correlated cardiorenal phenomenon is to be obtained from equally simple methods such as from estimating heart size, determining presence or absence of edema in the pulmonary or systemic fields of circulation and measuring blood pressure, with a few additional observations, all involving only the usual methods of physical examination practiced by all physicians with any claim to thoroughness in their work. Various, more exact methods, including special instruments, may be used. The use of some of these were necessary to obtain the exact data needed for a proper understanding of some of these relationships. However, with such data available for the working out of these relationships, most of these more complex methods can be dispensed with by

the clinician without his losing very much in the way of valuable help in the solution of his problems of diagnosis and treatment.

If a urine specimen shows a moderate to considerable amount of albumin, a few hyaline and granular casts, a few red cells and a specific gravity over 1.025 in all probability cardiac function is decreased, and this has caused decreased renal circulation, while renal function is depressed only in proportion to decreased renal blood flow. Physical examination of such a patient should show cardiac enlargement and signs of edema in both pulmonary and systemic circulations with or without hypertension, depending on the nature of the cardiac lesion responsible for cardiac failure. When these conditions exist, proper therapy, including bed rest, can be expected to restore cardiac function enough to cause the disappearance of edema manifestations. If this happens, albuminuria will decrease much or disappear, as will casts and red blood cells, while specific gravity falls to

*Read at the seventy-third annual meeting of the Michigan State Medical Society, Detroit, September 20, 1938.

normal levels. Here the renal disturbance has resulted from the cardiac decompensation causing decreased renal circulation and not from any primary renal lesion.

If a specimen of urine shows a large amount of albumin, none or a few to moderate number of hyaline or granular casts with no or a few red blood cells, and a specific gravity from 1.015 to 1.022, in all probability renal circulation is normal, and, if so, heart function is normal, and the heart is not working against any increased load. Physical examination of such a patient in all probability will show a heart of normal size, no signs of edema in the field of pulmonary circulation and normal blood pressure. If those are the findings on physical examination, it is quite safe to say that the patient is suffering from that form of Bright's disease in which, if not already present, edema of the subcutaneous tissue and probably fluid in the body cavities sooner or later will appear. What is going on is leakage through the glomerular membranes chiefly of albumin, globulin and possibly, to a very moderate degree, of red blood cells. This throws no burden on the heart but sooner or later will so change the composition of the circulating blood plasma that leakage of water through the systemic capillaries takes place with resultant edema. In some of these patients no other changes take place, and the conditions remain in statu quo or almost entirely return to normal. In others, chiefly those in whose urine sediment fairly numerous red blood cells appear, the picture gradually shifts; slowly edema decreases, albuminuria lessens, specific gravity of the urine decreases, blood pressure rises and later anemia comes into evidence; these shifts are gradual but progressive. Now a load is being placed on the heart by the rising blood pressure and probably by some of the other changes in blood composition, which sooner or later will result in heart hypertrophy and eventual heart failure; as these happen, the clinical picture takes on the added features of an increasing cardiac decompensation, among which are edema in the pulmonary and systemic fields of circulation. Study of this patient now in all probability will show an enlarged heart and evidences of pulmonary and peripheral edema usually with, or rarely at this stage without, high blood pressure. If under proper therapeutic

management cardiac function is so improved that evidences of cardiac decompensation disappear, little change will result in the urine findings which have been described above. This indicates that the disturbed renal function has originated mainly within the kidney and is in keeping with the idea that progressive intrarenal changes have been the cause of the developing cardiac dysfunction and final cardiac decompensation.

In the correlation of changing renal disturbance to cardiac function in such a patient, peripheral edema has passed through three phases. First, it appears with normal heart function by reason of changes in blood plasma composition and associated phenomena; second, it disappears with return of blood composition to more normal conditions at a time when progressive cardiac disturbances are under way; third, it reappears as a result of progression of cardiac disturbance increasing to the point of cardiac decompensation. It may be said that the early edema is of renal origin, the late or cardiac origin; the first concerns chiefly blood composition, the last blood circulation.

If in the urine sediment red blood cells are abundant so as to cause a gross hematuria, the progression and cardiorenal circulatory correlation will be essentially as just described, except that the early or renal edema will be a much less prominent feature. This is at the beginning the form of acute Bright's disease most often encountered.

If a specimen of urine shows only a trace of albumin, a moderate number, or even no, hyaline or granular casts and a specific gravity fixed at about 1.010, in all probability the blood pressure will be found much elevated and sooner or later there will be nitrogen retention. Many of these patients will show some to marked enlargement of the heart and slight to marked evidences of cardiac insufficiency with eventual peripheral and pulmonary edema. In other words these patients will resemble the later stages of renal disturbance as described in the preceding paragraph.

In considering cardiorenal circulatory correlations intrarenal and extrarenal circulation must be kept separate though recognized as interrelated. Decrease in the efficiency of the general circulation, mainly

caused by inefficiency of the heart, decreases the blood flow to all parts of the body, including the kidney; among the evidences of generally decreased circulatory efficiency are those resulting from decreased blood flow to the kidney with its resultant effect on nutrition of kidney cells and vascular membranes, mainly those of the glomeruli, causing chiefly glomerular leakage. The kidney structure, which seems most susceptible to decreases in blood flow, such as occur in cardiac decompensation, is the membrane interposed between the lumen of glomerular capillaries and the capsular space about the glomerulus. Experiment on animals has shown that with even slight reduction in glomerular capillary blood flow leakage of albumin through the glomerular membrane takes place promptly and that with slightly more disturbance of circulation red cells also pass through this membrane; from these changes albuminuria, often of considerable amount, and hematuria, usually only microscopic in degree, result. This is just what we observe in our patients, when cardiac failure leads to generalized chronic passive congestion with accompanying pulmonary and systemic edema. This reaction is such a delicately adjusted one, so far as the kidney is concerned, that not infrequently finding an increasing albuminuria and a few red cells in the urine sediment are the first evidences we have of developing heart failure in the sense of beginning cardiac decompensation. Intrarenal circulation here parallels extrarenal circulation.

Changes in the intrarenal circulation, apart from those associated with extrarenal, and hence general, circulation, have a very different correlative effect on cardiac function and general circulation, better understood now than formerly because of animal experiments. These effects on the cardiac function are indirect, caused by a developing hypertension, brought about apparently by some humoral effect as yet but imperfectly understood but resulting from changes in intrarenal circulation. The changes in renal function resulting from cardiac decompensation, which already have been described, do not cause any change in blood pressure, and this is in sharp contrast to the blood pressure raising influence of the intrarenal changes in circulation now to be described further.

The crucial point in intrarenal circulation seems to be in the glomerulus. Influences that check glomerular blood flow throttle the glomerulus, as I have chosen to call it in another discussion, and bring about a rise in blood pressure, which increases until both systolic and diastolic pressures reach and usually remain at levels much above normal. This throttling effect on glomerular circulation can be brought about by a variety of lesions effective on the renal circulation at any point between the aorta and the venous system of the kidney. This idea was first advanced in somewhat different form many years ago on the basis that an increase in systemic pressure was needed to maintain renal circulation and consequently renal blood flow, when glomerular lesions hindered it or renal atrophy necessitated a better blood flow in order that the smaller kidney could function above normal for its bulk to prevent total renal function from dropping much below normal. We now know that this process depends upon other things than simple compensation brought about to increase the drive of blood through the kidney.

This principle of glomerular throttling causing increased blood pressure is seen in its simplest form in the experiments of Goldblatt in bringing about in dogs a rise of blood pressure by reducing the calibre of the main renal artery by means of a silver clip, a method of impeding arterial blood flow largely devised for other purposes a good many years ago by the late William S. Halsted, the surgeon at Johns Hopkins.

Goldblatt's experiments show that in his dogs a high blood pressure can result from such arterial obstructing at a time when excretory renal function is undisturbed or but little reduced, because blood flow through the kidney is nearly enough normal to maintain cellular and membrane nutrition at approximately high enough levels to do the work usual to these structures in body economy. This normal level of renal excretory function may be maintained in these experiments because in these dogs all glomeruli are in active circulatory function, while in normal dogs always a considerable number of glomeruli at a given moment are, in all probability, in a resting phase; i.e., through their capillary loops blood circulation practically has ceased. Direct ob-

servation of the kidneys of frogs has shown this resting stage of many glomeruli to take place, while neighboring ones are showing active circulation, and that functioning glomeruli may go into a resting stage, while previously resting glomeruli can again take on active blood flow through their capillary loops. This, of course, so far as the dog is concerned, is merely speculation, as it has not been possible so far to observe directly the glomeruli in the living kidney of the dog; some other factor, of course, may be responsible for these results, an increased blood pressure with not abnormal excretory function produced by throttling down the blood flow in the main renal artery, even in only that going to one kidney.

That the blood pressure elevation is due only to the throttling is shown by the rapid fall to normal of blood pressure after the throttling metal clip is removed. That this is not a reflex nervous mechanism from the kidney is shown by obtaining the same results after all nerves to the kidney have been severed and from experiments with a kidney transplanted into the neck so as to function well. These observations suggest that something formed in the throttled kidney escapes by the circulation in some way to bring about elevated blood pressure, possibly by causing generalized peripheral vascular obstruction. This appears not to be a product of abnormal renal retention, since renal excretory function has remained good.

The effects obtained in dogs by Goldblatt's experiments are analogous to those seen in man with what we call essential vascular hypertension in which there is high blood pressure and essentially normal renal excretory function with urine within the range of normal in all known constituents. In man, however, with essential vascular hypertension we have no direct observations pointing to the existence of a renal throttling like that in the Goldblatt dogs; but, however caused, in man the hypertension, as a rule, persists and eventually leads to cardiac enlargement and later cardiac decompensation with the physical signs and urine findings described earlier as occurring in cardiac decompensation caused by any sort of lesion of the heart leading to cardiac insufficiency, i.e. cardiac lesion either without or with high blood pressure. These patients die usually of cardiac failure or

coronary occlusion and some from cerebral vascular accident.

Now, if instead of throttling glomerular flow as in the dog by means of a partial obstruction of the main renal artery, it is brought about, as often happens in man from vascular disease, by a diffuse throttling effect on many arteries within the kidney tissue and particularly on the arterioles near the glomeruli, we get a different effect. There is the same rise in blood pressure and eventually, if the patient lives long enough, heart enlargement and cardiac decompensation follow. So far the cardiorenal circulatory correlation is the same as that just described. In addition, however, there is a definite effect in these patients on the excretory function of the kidney; renal excretory function is greatly decreased as shown by lowered specific gravity of the urine tending to fall to, and fix at, about 1.010, by nitrogenous retention in the blood and later anemia and by moderate albuminuria and cylindruria. Some of these patients die from cardiac failure, coronary occlusion or cerebral vascular accident, while slightly more die of uremia. This is what the pathologist calls vascular nephritis; some clinicians speak of it as malignant hypertension, a term that always has seemed to be undesirable.

Lesions of the glomerulus itself may be the cause of throttling of glomerular blood flow, i.e. different varieties of glomerulonephritis. In these patients, as a rule, evidences of decreased renal excretory function come earlier and progress more, while rising blood pressure is later in sequence and less in influence on the clinical picture, until the later stages of the disease, when the findings are the same as have been described in the preceding paragraph.

Throttling within the glomerulus can be caused in a variety of ways, all of which lead to the same final clinical picture. The normal glomerulus is complex in both structure and function and from this complexity derives the possibility of disturbance of its structure and function in many ways. Besides throttling, when the pathological lesion, that throttles the glomerular circulation, lies within the glomerulus, as a rule, also there is an accompanying lesion of the structures of the glomerulus, which inhibits filtration through the glomerular membrane of substances that under normal conditions

thus are excreted from the body. When this happens, we have these various substances retained in the body, and they increase in amount in the circulating blood. Most important of these are the various forms of nonprotein nitrogen, and we say that the glomerular lesion has caused nitrogen retention. With such retention eventually comes a symptom-complex that we know as uremia. The exact mechanism and cause of uremia is not understood; from the point of view of our present discussion it suffices to think of it as an accompaniment of nitrogen retention, a symptom of a disturbance of glomerular function that hinders its normal excretory function. From intraglomerular lesions arise finally both elevation of blood pressure with eventual heart failure and uremia with a later appearing anemia.

This form of renal insufficiency can result from any form or combination of forms of what the pathologist causes glomerulonephritis, sometimes progressing from an attack of acute Bright's disease, with or without subsequent acute exacerbations, and sometimes gradually developing in an entirely insidious way. In the first group infections of various sorts, especially those of the upper respiratory tract, commonly precede the symptoms and signs of renal disease; in the second group no evidence of a primary infection can be found. The lesions in the glomeruli in terms of the pathologist may be a proliferative capsular glomerulonephritis, an intracapillary proliferative glomerulonephritis, a hyaline thickening of the glomerular capillaries, a fibrosis of the glomeruli with progressing sclerosis and atrophy of the glomeruli, all causing both throttling of the intraglomerular circulation and retention of substances normally excreted by the kidney. Secondary to these lesions in the glomeruli, tubules hypertrophy or atrophy, interstitial connective tissue increases, and the kidneys decrease in size. The final clinical result is the same as that from a progression of the lesions of vascular nephritis; the former sometimes is called the secondarily contracted kidney, the latter the primarily contracted kidney.

There is another way of arriving at this same sort of clinical picture, one by no means infrequently encountered in our patients. This way is a progression from

what began as either mechanical obstruction to the outflow of urine from the pelvis of the kidney or as a pyelitis soon accompanied by pyelonephritis. The mechanical obstruction, brought about by any form of lesion to the pelvo-uretero-cystic-urethral tract, ordinarily is accompanied by infection and a resultant pyelonephritis. Usually in these patients there is an excess of pus cells in the urine to indicate the nature of the process, but in some of these patients, when observed in the stage of the process here under discussion, pus cells practically are absent from the urine, and there are no systemic symptoms of an active inflammatory process anywhere in the urinary tract. Pyelonephritis leads to increase in interstitial tissue with atrophy of renal parenchyma, to lesions in the renal arterioles and to glomerular lesions, all of which result finally in throttling of intrarenal circulation and subsequent hypertension with, in some, eventual cardiac decompensation and renal retention causing later uremic manifestations and anemia, a clinical picture at this stage indistinguishable from that caused by either vascular nephritis or glomerulonephritis except such evidences as may remain of a pyelitis; in all three of these processes the end-result is a small kidney. That such is a frequent sequence to pyelitis makes all the more imperative the early, thorough, persistent treatment of pyelitis followed through to a cure, if possible, as a prophylaxis against these later manifestations of renal insufficiency. Surgical measures to promote free flow of urine from kidney to external world are often essential parts of the treatment. In no case of persisting pyelitis should the help of the genito-urinary surgeon be omitted.

Summary

In all of the forms of kidney lesions, as here described, the cardiocirculatory correlations play a dominant part in causing their symptoms and physical signs. Part of the proper treatment of Bright's disease, especially the chronic forms, must concern itself with the therapeutic management of the circulation; this may be, and often is, the part of the treatment that yields the best results. The physician ever should keep in mind three facts: (1) that the general circulation disturbs renal function; (2) that disturbed renal function, the result of

intrarenal lesions, has an injurious effect on general circulation; (3) that there is a close correlation between extrarenal and intrarenal circulation, each in an important way influencing the other, the two together productive of the physical signs and symptoms which we encounter in our patients whose urine shows departures from normal in specific gravity, albumin content and ap-

pearance in the sediment of casts and cells. Very simple methods of history taking, physical examination and urine study, all of which can be carried out by any well trained physician in his office, suffice for an adequate understanding of the clinical problems and for a proper therapeutic management of patients with chronic Bright's disease.

NEWER METHODS OF NEUROPSYCHIATRIC DIAGNOSIS AND TREATMENT*

ROY R. GRINKER, M.D.

Chicago, Illinois



R. GRINKER, M.D.

Many medical students acquire a great dislike for the field of neuropsychiatry due to the extensive anatomic and pathologic knowledge necessary for the understanding of clinical disturbances in man. This dislike is intensified later in practice because the physician soon learns that the neuropsychiatrist is very proficient in making astute diagnoses and localizations of lesions, but has little to offer therapeutically. This pessimistic point of view toward the specialty finds its basis in the frequency of degenerations and destructive processes affecting the nervous parenchyma, which, unlike other organs, has no regenerative powers.

When central nervous tissue is destroyed, whether by infection, vascular disturbance, trauma or neoplasm, permanent defect is inevitable.

It is not realized that organic destructive processes are not the most frequent afflictions of nervous tissue, that disturbances of function without morphological change are even more frequently seen at the basis of disorders of the nervous system. Furthermore, it is these disturbances of function that offer opportunities for therapy, which have only recently been fulfilled as a result of increase in knowledge of biochemistry and biophysics. Strangely enough, it has been from workers in peripheral fields that the greatest advances in neuropsychiatry have come about, due just to the fact that function of nervous tissue can only be understood and influenced by biochemical methods.

I shall recount a few recent important advances in diagnosis and treatment of neuropsychiatric disorders which may profit the general practitioner to understand.

Infections

A great advance in the treatment of infections of the nervous system came about through the advent of sulphanilamide. Its intramuscular and oral use has been proven efficacious in treating certain streptococcic infections, among which is leptomeningitis, which hitherto in its purulent form was 100 per cent fatal. We have seen numerous recoveries without sequelæ. As a matter of fact, mastoid complications of otitic infections have changed in character and less often require operation. Last winter there were only three mastoid operations at Michael Reese, a 600-bed general hospital. Intracerebral complications assume less serious proportions. I have seen three patients in whom the beginning evidences of brain abscess with definite focal signs were caused to recede and operation never became necessary. Sulphanilamide used in the localized encephalitis stage or pre-abscess formation before the development of pus seems to be efficacious in clearing up the infection. Once suppuration has begun, sulphanilamide may halt progress but operative drainage is still necessary after a firm

*From the Department of Neuropsychiatry of the Michael Reese Hospital, Chicago. Read before the Michigan State Medical Society, Detroit, September 20, 1938.

capsule has formed. Since operation on acute brain abscesses is usually fatal the use of the drug may be indulged in without danger, for if suppuration requires drainage the lapse of time is beneficial rather than harmful to the patient.

Acute poliomyelitis during the last two years was with us in severe epidemic form. We recognized that this year and perhaps next year would be free from numerous cases. The experience of the last two years taught us that nasal spraying was ineffectual as prophylaxis. Vaccines have been proven dangerous. At Michael Reese we use convalescent poliomyelitis serum injected intravenously in pre-paralytic cases as soon as the diagnosis is established. Excellent results have been reported at our hospital, which has the advantage of possessing a serum center. We, however, still have an open mind regarding the value of serum, as statistical studies have not yet conclusively proven or disproven the case. I personally would recommend the serum if early diagnosis is possible on the basis of characteristic spinal fluid pleocytosis in the so-called "pre-paralytic" cases.

Fever treatment still continues to be the best method of handling late neurosyphilis of the general parietic type although tryparamide is also extremely valuable in conjunction with fever. The early diagnosis of neurosyphilis continues to be the desideratum which we hope will be furthered by the recent national propaganda for routine serological examinations. Optic atrophy in syphilitics, long considered to have a grave prognosis, seems to be benefited by the old Swift-Ellis method of intraspinal injections of salvarsanized serum.

Regarding fever treatment, a word should be mentioned of its use in multiple sclerosis, which is considered an infection by many. Fever in this condition is entirely ineffectual in furthering a remission. The same holds true for fibrolysin, arsenicals and quinine. The promise of the last-named drug, so highly recommended by Brickner, has not been fulfilled.

Functional Disturbances

The treatment of the epilepsies is still a matter of sedation. The proper threshold-raising combination of bromides and phenobarbital is the best we have yet to offer. Lennox has been experimenting with dilantin, which does not have the sedative effect

and yet is a potent anticonvulsant, and the drug should soon be in general usage. Ketogenic diet has proven successful in children only and then usually in combination with some sedation. Dehydration, recommended by Fay, has not proven valuable.

The epilepsies include a host of varied causes of the convulsant state. Patients with the history of trauma or with focal signs not due to a known organic condition such as arteriosclerosis, syphilis of the brain or neoplasm should be suspected of harboring a cortical scar. Air encephalography, when performed, may disclose a pull by the scar tissue in the presence of a distorted cerebral ventricle. Surgical removal of the scar may abolish the epileptic seizures.

A type of epilepsy and syncope has been found to be due to a hyperirritable carotid sinus which when stimulated by pressure of a collar or through neck movements evokes a reflex drop in blood pressure or a cerebral reflex producing unconsciousness and perhaps convulsive movements. The phenomenon is tested by evoking digital compression of the carotid sinus and if present attempting to abolish the reflex by injection of novocaine into the sinus. If these tests are positive the nerve supply to the sinus should be removed surgically.

Migraine has been treated by scores of drugs without consistent success. Recently ergotamine tartrate given intramuscularly in 1.0 mg. doses will abort an attack when used at the first premonitory sign or shorten an attack when it has already begun. The dosage may of necessity be higher or a single dose repeated. There is little danger of ergotism as long as infection is not present, even in the presence of considerable arterial disease. In some people the drug is efficacious when given by mouth.

Myasthenia gravis, a condition of unknown origin associated with transient attacks of severe muscular weakness on exertion, has been greatly helped with the use of ephedrine or benzedrine sulphate. Recently prostigmin in combination with atropine has yielded remarkable results in improving strength and decreasing fatigue. Prostigmin may be used orally in 30 mg. doses repeated several times daily.

Narcolepsy consisting of marked sleepiness and somnolence even during activity,

associated with tonelessness on strong emotion, has been benefited by ephedrine. Recently benzedrine sulphate in 10 or 20 mg. doses repeated several times daily prevents the excessive sleepiness. Caution should be used so that blood pressure is not unduly elevated by the drug and that the last dose is not given too late in the day, causing nocturnal insomnia. Benzedrine does not have the claimed beneficial effect on depressions and only increases the anxiety in these melancholics.

Progressive muscular dystrophy, which is usually hopelessly progressive, is probably primarily a metabolic disorder. Excessive creatinuria due to non-utilization of amino acids is decreased by the use of glycine. However, clinical improvement or arrest of the disease has not been accomplished by this means.

Deficiency Disorders

Recent studies on vitamin deficiency seem to indicate that vitamin B depletion is responsible for serious disturbances in the peripheral nerves. Many conditions previously called neuritis are degenerations of the peripheral nerves due to deficiency in this vitamin. Alcoholism probably causes neuritic changes because of the concomitant vitamin deficiency rather than as a result of the toxic effect of alcohol. Thus therapy should not only be withdrawal of alcohol and physiotherapy but also intensive replacement therapy, using vitamin B concentrates intramuscularly or nicotinic acid. It has been suggested that neuritis of pregnancy, diabetic neuritis, et cetera, are due to similar vitamin depletion.

The problem of the neurologic complications of pernicious anemia is still unsolved. No one knows the relation of the peripheral nerve, cord or brain symptoms to the primary anemia. In the minds of many, vitamin A is the basic factor in nerve and blood changes, apparently confirmed experimentally by Mellanby. Controversial is still the question whether serious cord symptoms may be prevented by adequate treatment of the anemia, its progress stopped once it has manifested itself, and whether recovery may occur. Regardless of these arguments, early and adequate therapy by liver administered in large dosages parenterally and by mouth should be given, sufficient to keep the red count above 5 million cells per cubic millimeter.

Neurosurgery

Advances in neurosurgery have been largely in consolidation of technic and standardization of approaches to neoplasms in typical positions. Diagnostic measures using iodized oil and air by ventriculography and encephalography have improved diagnostic accuracy. Courageous surgeons like Dandy and Peet have developed operations to attack tumors in what were presumed to be inaccessible locations.

Several new procedures have been developed. Dandy has recommended an occipital approach to the fifth root in trigeminal neuralgia to avoid sacrificing tactile sensation of the face. Most surgeons still follow the old temporal approach.

Dandy considers that Meniere's syndrome is due to an aberrant loop of the anterior inferior cerebellar artery which strangulates the eighth nerve. He sections the nerve intracranially, obtaining complete relief although sacrificing the remaining hearing on the affected side.

Peet and others have developed sympathectomies for the relief of essential hypertension. Peet's splanchnectomy has given spectacular results with relief of distressing symptoms and prolongation of life. The exact indications for the operation and ultimate outcome are yet to be reported.

Putnam has successfully improved cases of extrapyramidal disease causing severe clinical dystonia by anterior cordotomy. Bucy has, likewise, improved patients with extrapyramidal rigidity by extirpation of portions of the premotor area. Learmouth has relieved bladder incontinence by severing the presacral nerve in the pelvis. Others have relieved severe pelvic pain from numerous causes such as carcinoma, or in severe dysmenorrhea, by cutting the presacral nerve.

The choroid plexus has been cauterized in infants with congenital hydrocephalus with recovery and absence of mental retardation. The mortality from this operation is, unfortunately, still very high.

Psychiatry

Progress in therapy of mental diseases has taken a sudden great spurt with the discovery of shock therapy, either by the use of large doses of insulin or the convulsant drug, metrazol. Remissions have been reported in a large percentage of cases, more

in those treated early and in the more favorable paranoias. Every medical journal has published glowing reports of cures, the final evaluation of which is not yet to be expected at this early date. It is urgently requested that early diagnoses be made of schizophrenics and immediate shock treatment instituted in order for the best outcome to be obtained.

Shock therapy has also been used in depressions with reported success. In this condition the psychological effect of the treatment is probably of greater significance than the physiological responses produced. The use of very large doses of theelin in depressions occurring during the menopause continues to be stressed, although the results are less spectacular than promised.

The greatest advance in neurological diagnosis has come through the advent of the electro-encephalograph, which, by radio amplification, enables action currents from the brain to be registered through the intact skull. Aberrant waves from brain tumors can be detected and neoplasms fairly accurately localized. Characteristic curves for various mental diseases and specific psychological trends, we hope, may

be determined in the future. (Lantern slide demonstration.)

In this brief summary we have seen how slowly the progress of therapy in neuropsychiatry has been. The advent of fever treatment of neurosyphilis was epoch-making,

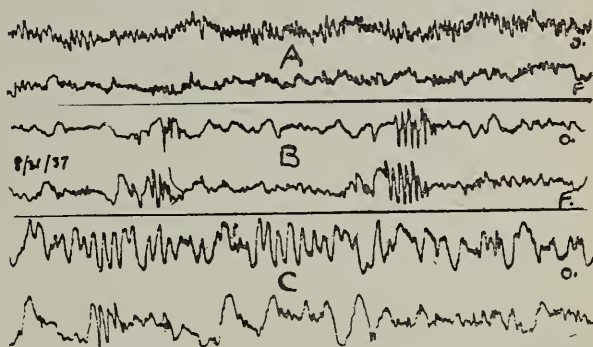


Fig. 1. Electro-encephalograms in which *O* designates the occipital lead and *F* the frontal lead. *A*, normal 10 per second rhythm. *B*, epileptic excitation showing onset in frontal region. *C*, Irregular waves in organic deterioration.

ing, as is the shock treatment for schizophrenia. Both were empirically derived. How much more rapid will progress be made in therapy when scientific workers in peripheral fields give us a better knowledge of the chemistry and cellular physiology of the brain!

REGIONAL OR SEGMENTAL ENTERITIS "ILEITIS"*

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During the last five years, there has been shown an increasing interest in a new clinical syndrome which has more or less captivated the gastro-enterologists and abdominal surgeons. Because of its diverse clinical manifestations, the nomenclature applied to this syndrome has been rather confusing. It was not until 1932 that Crohn, Ginzburg, and Oppenheimer³ clarified a much confused terminology, and showed clinically and pathologically that the descriptive terms, chronic cicatrizing enteritis, non-specific, benign, or infectious granulomata of the intestine, and phlegmonous enteritis, are all manifestations of the same clinical syndrome of terminal ileitis. However, the pathological process itself was not entirely limited to the terminal ileum, but as Brown, Bargaen, and Weber² showed in their series of eighteen cases, the cecum and part of the ascending colon were involved, and consequently the name, regional enteritis was applied in preference to the term, terminal ileitis, and more

recently Lewisohn⁸ has suggested the term, segmental enteritis, which, from a clinical pathological point of view, is preferable to the term, ileitis. But because the term, regional ileitis, has had precedence over the term, enteritis, most general practitioners are using all of these terms more or less interchangeably.

A specific etiological factor is not known, but Felsen and Gorenberg⁴ in 1935 traced

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eleven acute and eleven chronic cases of distal ileitis to bacillary dysentery. However, Crohn reported only one positive agglutination against dysentery organisms in ileitis. Probst and Gruenfeld¹³ believed that the greater frequency of this lesion in the distal ileum might be due to stagnation at the ileo-cecal valve and to the greater abundance of lymphatic tissue there, rather than in any other of the bowel segments, and that this might favor bacterial absorption. Reichert and Mathes¹⁴ injected irritating and sclerosing material into the mesentery and subserosal lymphatic vessels, and produced a sclerosis and thrombosis of the lymphatics which led to a lymphedema of the intestinal wall. All these various theories tend to show that chronic low-grade infection with lymph stasis are concerned in the pathological physiology of the syndrome. There seems to be no predilection for race or sex, and the percentage of cases are about equally distributed between the sexes.

The disease is essentially seen in early adult life, however, a wide range of age incidence is seen, ranging from patients as young as fourteen years of age, to individuals in their late sixties.

Grossly, the pathological process is more or less confined to the terminal ileum, and may show some involvement of the cecum. The mesentery of the ileum and the adjacent lymph glands are also usually involved. In the acute stages, the mesentery is usually thickened and studded with enlarged mesenteric glands. The segment of bowel involved is usually reddish purple in color and appears more or less swollen. The gross appearance, as Jackson⁵ so aptly states, is "like a soggy hose." The pathology may be entirely limited to one segment of the ileum or, as Pemberton and Brown¹² have shown, there may be multiple involvement or "skip areas" throughout much of the small bowel. In the more chronic stages of the disease, the edema and engorgement have more or less receded, leaving a grossly thickened wall which has a leathery appearance, as well as feel. Peculiarly enough, there are very few adhesions.

The cut section reveals a marked diminution in the size of the lumen of the involved area, due to hypertrophy and hyperplastic changes in the elements of the submucosa. In the more advanced stages, multiple fistula

may be seen perforating into the general peritoneal cavity. Obliteration of the lumen of the distal ileum is seen in the obstructive stages, usually preceded by a fine opening which gives rise to the characteristic roentgenological "string" sign. The fibrosing process reduces both the circumference and the lumen of the bowel, and the thickness of the wall may vary from 5 to 15 mm. The mucosa, as Adams¹ has shown, is for the most part, diffusely ulcerated. In some cases the mucosa between ulcerations is thrown into coarse papillary folds, producing pseudo-polypoid masses, such as are seen frequently in chronic ulcerative colitis. Adams made an exhaustive microscopic study and found that the process simulated ulcerative colitis in that the mucosa is usually absent, and the submucosal tissues are replaced by vascular granulation tissue with a marked non-specific chronic inflammatory process, characterized by an infiltration of lymphocytes, plasma cells, large mononuclears and polymorphonuclear eosinophils. Although he showed that the most involved area seems to be the submucosa, there is, however, in almost all of the cases, a definite involvement of the mesentery and muscular serosal layers. Furthermore, the mesentery glands are usually enlarged and show a similar non-specific chronic inflammatory process, and huge foreign body giant cells with as many as thirty nuclei are present, a finding which is not observed in ulcerative colitis. These findings suggest tuberculosis or lues as a causative agent, however, it has not been proven.

Symptoms

Jackson,⁵ in his recent article, uses Crohn's³ original grouping of four clinical types as the easiest way of evaluating the progressive stages.

Group 1.—The symptoms of this group simulate those of acute abdominal inflammation, appendicitis in particular. Pain and tenderness in the right lower quadrant, accompanied by cramps, fever, and leukocytosis occur, and there may or may not be a palpable mass. Operation reveals a greatly thickened and reddened terminal ileum which has a tendency to bleed. The mesentery is edematous, with enlarged hyperplastic glands. The appendix may be involved by contiguity, but it shows no mucosal inflammation.

Group 2.—Symptoms suggestive of ulcerative colitis occur in the second stage with diarrhea and cramp-like abdominal pain, and occasionally blood and mucus are found in the stool. Severe anemia may develop, with marked loss of weight, malaise, and slight fever.

Group 3.—The stenotic stage follows the ulcerative phase. As a result of the extreme thickening of the intestinal wall, the lumen of the bowel gradually becomes constricted. The healing of the mucosal ulcerations tend to bring about an obliteration. This is most marked in the region of the ileocecal valve. The symptoms are those of partial obstruction of the small intestine. A mass is usually palpable; violent cramps, occasional attacks of vomiting, and constipation may occur.

Group 4.—In this stage multiple fistulas are formed that may open either internally or externally through the abdominal wall. Roentgenological examination may reveal these fistulas which persist and resist surgical measures at closure, unless the bowel is resected.

Jackson also calls attention to the work of Kantor⁶ who emphasized certain roentgenological findings that have become more or less pathognomonic of regional enteritis. Once the pathological process has been sufficiently established to cause ileal stasis, the following signs may be visualized roentgenologically, according to Kantor:

1. A filling defect in the terminal ileum with a mild ileal stasis and distension proximal to the defect appears.
2. And as the stenosis increases a fine line of barium is seen in the ileocecal junction, which was described by him as the "string" sign.
3. A filling defect may be seen just proximal to the cecum.
4. An abnormality in the contour of the last filled loop of the ileum may be visualized.
5. The ileac loops just proximal to the lesion may show dilatation.

Treatment

The treatment of regional ileitis is essentially surgical, and usually necessitates removal of the diseased segment with reestablishment of the continuity of the intestinal tract. The type of procedure to be used depends a great deal upon the pathological process that is present. No set technic is indicated since every case reported by the various clinics has its own personal problem and the surgical procedure is dependent upon the versatility of the operating surgeon. Mixer¹¹ states that "our best results have been obtained by the one-stage ileocecal resection and closure without drainage." This type of operation is more readily applicable to the early stages when complications are minimal. When the case is seen in the later stages, a short-circuiting operation such as an ileocolostomy is advisable, since the involved segment is put to

physiological rest, and healing may occur, and the patient can be watched for further progression of the symptoms. In the meantime, the general condition of the patient

Diagrammatic Views of Kantor's X-ray Findings in Regional Ileitis

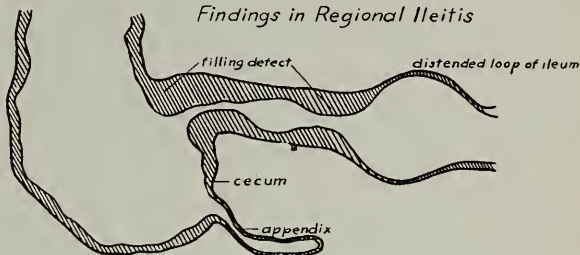


Fig. 1



Fig. 2

Fig. 3

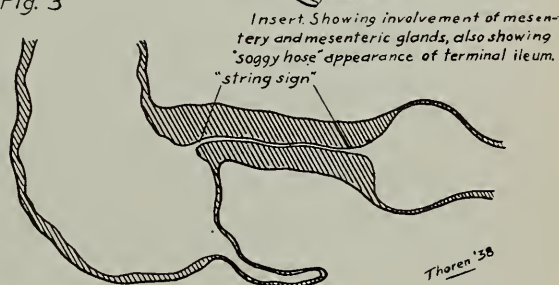


Fig. 1. Sagittal section showing marked filling defects due to infiltration of the submucosa. Early pseudo-polypoid configuration of the mucosa is seen.

Fig. 2. The pathologic process is more or less confined to the terminal ileum and may show some involvement of the cecum. The mesentery of the ileum and the adjacent lymph glands are usually involved. In the acute stages, the mesentery is thickened and studded and with large mesenteric glands.

Fig. 3. Obliteration of the distal ileum is seen in the obstructive stages, usually preceded by a fine opening which gives rise to the characteristic roentgenologic "string" sign.

is enhanced and he becomes a better risk for more radical procedures at a subsequent date, when a resection of the involved area can be done with a minimal hazard. Pemberton and Brown¹² think that the interval between the stages of the procedure should be varied, and should depend chiefly upon the general condition of the patient, the nature of the complicating lesion, and in their experience, they have seen no progress of the disease occur between the first and second stages, when the interval did not exceed six months. On the contrary, there has been without exception, a very marked subsidence of the inflammation which greatly facilitated resection. Knapper⁷ advises an immediate radical resection as far as the transverse colon, if there are no insurmountable

difficulties. When the condition of the patient is poor or abscesses are present, an ileo-transversotomy should be done at first and resection should be delayed. In the chronic stage resection is indicated. Meyer and Rosi^{9,10} state that occasionally the condition may resolve and a spontaneous cure may result. However, they state that a short-circuit operation without resection of the mass completely relieved the symptoms in about 50 per cent of the patients upon whom it was performed.

Adams¹ states "a two-stage operation was performed in twice as many cases as the one-stage procedure and is generally deemed safer by us, and other contributors on this condition. The short-circuiting ileocolostomy is dangerous since it leaves the diseased bowel as a source of infection, chronic perforation abscesses, fistulae, and is a constant menace to the health of the patient. Operation in the very early stage should be avoided if possible, and if it becomes necessary to establish with certainty the diagnosis in an acute abdomen and the disease is found in its early acute phase, it should be handled with great conservatism, limiting the operation to minimal exploration only, placing the patient on a strict peritonitis or Ochsner regime, and delaying the resection to a subsequent chronic stage of the disease."

The underlying infection, in spite of its chronicity, is of more or less virulent nature, and peritonitis is the most frequent complication seen. Peritonitis may be primary, and encountered at the time the patient is seen in the acute stage, or may be secondary to either one of the surgical procedures, mentioned above. The peritonitis seen secondary to the perforating type of lesion may be of a fulminating nature if the contents of the diseased bowel are extruded into the peritoneal cavity, or else it may be localized, giving rise to abscesses in the region of the involved segment. Pulmonary infarcts are not uncommon, and the associated pathology due to a chronic debilitating disease should always be borne in mind, since the heart and kidneys seem to suffer from the toxic state present.

Diagnosis

The direct diagnosis of regional enteritis is dependent upon a careful observation of the patient. When the picture of an acute abdomen presents itself in the early stages

of the disease, acute appendicitis is the most important acute inflammatory condition of the abdomen from which regional ileitis must be differentiated. A conservative attitude should be assumed and an exploratory McBurney incision should be made, so that the ileocecal region can be explored, and if an appendicitis is found it should be removed, but if there is involvement of the ileum and a sausage shaped tumor is palpable or visualized, the patient should be put on Ochsner regime, and the abdomen should be closed without drainage.

An acute gastro-enteritis is at times hard to rule out, but here the history of a dietary indiscretion, frequent diarrhea, and positive agglutination studies for the bacillary dysentery group will be useful. Ulcerative colitis is usually differentiated by proctoscopic studies and roentgenological visualization of the typical features of this disease. In the later stages in which obstruction is present, carcinoma of the cecum and ascending colon is differentiated by Kantor's five roentgenological signs. In the fistula stage actinomycosis is differentiated by demonstrating the sulphur granules on pieces of gauze which later can be shown to contain the *Actinomyces*.

Lymphogranuloma inguinale, which is now known to involve the entire gastrointestinal tract, because of the general dissemination of the virus, is differentiated on the basis of the Frei test. Acute mesenteric adenitis is only differentiated by an exploratory procedure, when the acute stage of regional ileitis or appendicitis cannot be ruled out.

Prognosis

The prognosis is dependent upon the stage in which the patient is first seen, and if the patient is not in too debilitated a condition, the prognosis is good, but if seen in the later stages of the disease, prognosis should be guarded, since the mortality is about 11 per cent.

Summary

A brief review of the salient features of regional ileitis is presented with a reference made to certain articles of import which will be of definite interest to anyone interested in this syndrome; since the increasing number of cases being reported brings this subject into surgical prominence, it becomes necessary for every surgeon who sees a case

of acute appendicitis to think of regional enteritis.

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THE VALUE OF MEDICAL ORGANIZATION TO THE PUBLIC AND THE PROFESSION*

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The medical ideal did not spring into being, full grown, in any age or country, like Minerva, from the head of Jupiter; it has grown through the centuries, taking to itself something of Hippocrates, of Galen, of Paracelsus—to name the ancients; it has been enhanced by Harvey, Lister, Osler, Reed, Noguchi—to name others at random; it has acquired stature because of the work of artists like Leonardo da Vinci and scientists like Pasteur; it has become a living personality in the character of Ian MacLaren's "Doctor of the Old School," in Dr. S. Wier Mitchell's delightful "Dr. North" and in that most modern "Horse and Buggy Doctor," Kansas' own Hertzler.

The passage of time, with the progress of civilization, and the unfolding of science have broadened the meaning and the significance of that composite of noble personal qualities and high standards of service associated today with the appellation "The Doctor."

An ideal is always a superman but the medical ideal is not the superman of Nietzsche, who tramples on humanity to raise himself; the medical ideal is that of a great healer, a great helper of mankind. Naturally, being the ideal, this Doctor of Medicine is such a combination of the noblest of qualities and the highest degree of skill that no one physician ever quite attains them all, yet the individual who is not filled with a desire to attain, to possess within himself all he humanly can of them, is out of place in the medical profession.

A group like yourselves needs hardly to be reminded of the rôle of science in the training of a physician. It is not out of place, however, to remind you that all through his life the physician must continue

to be "the sober searcher, the cautious striver" as Browning makes his Paracelsus phrase it; that the physician must have a passion for accuracy in thought and action, an insatiable curiosity for new truths and a willingness to test for truth or falsity all conclusions and to judge, without prejudice, the results of these tests. In other words, to be "embued" as was Paracelsus "with comprehension and a steadfast will."

Since disease is protean in form and infinite in the variety of its manifestations, the physician must be keen to observe all things. Cure depends on finding and recognizing the condition to be cured. The good diagnostician uses all his senses and all the aids that science has added to those senses to discover, classify, compare and correctly judge all that bears on the health or sickness of his patients. Those who cannot do this cannot be good physicians and in this connection let me return to the ideal of the medical man and pay tribute to those great teachers and clinicians who have given to their students such worthy examples to follow in the bedside study of disease, and to those practicing physicians who have been willing to share with others, especially the

*Read before the Interns Conference at the Annual Session of the Michigan State Medical Society, September 19, 1938.

younger men, the wealth of their bedside experience.

Success in the art of healing demands of the physician more than ordinary understanding of human nature, and a sympathetic appreciation of its weaknesses. There must be an appreciation of all the values of human life, and a recognition—nay, a conviction—that in spite of appearances, life is not only good but supremely good and to be both defended and extended. It is these qualities of personality that make much of the basis of the patient's confidence in his physician and this confidence in the physician is the medical man's strongest ally in battling disease.

The physical demands on the physician are great, even in our modern day and in our modern cities. Disease works at no fixed hours; the outcome of a crisis is sometimes an endurance struggle for both the doctor and the patient. An epidemic will not delay its attack because a physician needs a vacation. Let him who would enter the practice of medicine make no mistake in this.

Necessary as is the physical stamina of the physician, moral stamina exceeds it in importance. The person who lacks moral backbone and ethical integrity does not belong in the medical profession. It is no longer demanded of physicians that they take the Hippocratic oath before entering the practice of medicine but the very greatness of the task before them, the very inheritance they assume when they follow in the train of those who have preceded them, challenges them to make that oath the guiding principle in their life's work. Whoever enters the practice of medicine enlists in an army to defend all humanity against the attacks of disease. The need for this defense is alone the justification for the existence of the profession and for the enlistment of individual physicians. Everything else must be subordinate to this. The physician who withholds any effort, or puts any consideration ahead of this defense of the health of humanity, is a deserter in the face of the enemy.

This ideal of self-sacrifice, sympathy and true humanitarianism, is not something above and beyond daily work, to be eulogized on the rostrum and neglected in the sickroom or the office. Neither is it a garment to be assumed and laid aside at will or to suit circumstances; there must be un-

restricted devotion to the cause of human health; whoever puts other ambitions above this is misplaced in the practice of medicine. If this foundation is firm, the physician can build his medical career as high as his scientific and other attainments and abilities permit. Lacking this foundation any structure he may raise will be only a deceptive shell.

Progress against disease depends on the proper application of all that science can contribute. To add new truths to the armamentarium of those who battle disease (for surely new knowledge, a new approach to an old problem, may as fittingly be called his armamentarium as his medicines or instruments), scientists and medical men in all ages have turned away from financial rewards, have sacrificed everything, even to their own health or their lives. The heroes of medicine, to whom highest honor is paid, are those who have contributed most to its advance, impelled not by the hope of pecuniary rewards but by the very might of the need they saw about them or the untouched wealth of nature's secrets. Individuals, universities, laboratories, and research institutions of every kind are pushing further the boundaries of scientific knowledge that humanity may reap the benefit in greater degrees of health, lessened sickness and diminution in pain and suffering. It is the function of the profession as a group, and of physicians as individuals, to use this knowledge—theirs has been the special training for this task.

Each new contribution should be tested, approved, or rejected, and if found of value, distributed through professional meetings, books and periodicals to the whole body of the profession. In this work of distributing new knowledge to physicians medical societies play a great rôle.

The general public needs information to assist it in maintaining health and in securing proper medical care when it is needed. Public education in matters of health is a prime duty of the individual physician and of his professional group. The advance in medical science is so rapid there is always a wide gap between professional knowledge and the general lay understanding of medical subjects. Only by so educating the public, that this gap may be kept as narrow as possible, can the profession be sure of maintaining the proper understanding and confidence between itself and the public. If this

chasm between the professional and popular knowledge is not bridged by truthful and scientific information, it will be by unscientific trash.

The quack and nostrum peddler fatten on the ignorance which lack of real and proper medical knowledge on the part of the public permits to accumulate. Charlatans and medical pretenders are quick to exploit the credulity, the misconceptions, the half truths and the prejudices and superstitions of the misinformed. If the medical profession is to protect the health of the people, it must be eternally vigilant to supplant with real medical knowledge the fallacies and harmful activities of cults, quacks and the sellers of nostrums. Standards for medical education, drugs, appliances and of the actual practice of medicine mean nothing if they are not understood and observed. Professional organizations are the guardians of such standards for the protection of the health of the public. It is the duty of these organizations to educate the public to an understanding and appreciation of, as well as a demand for, a high quality of medical service. The physician who violates either the scientific or ethical standards of his profession sins against both his professional group and the public itself to whose service he is dedicated. When the individual physician joins his professional group he puts himself on record before the other members and before the public as subscribing to the ideals, the objects and the standards of the group. It is therefore the right and even the function of the group, in the interests of the health of the public, to exact adherence to these standards and to condemn disregard of them.

The individual who possesses to a creditable degree the qualities of the medical ideal, and who demonstrates his ability to acquire the necessary information arranged for him by his medical school enters the practice of medicine as a heavy debtor to his professional predecessors and to his immediate associates, be they individuals or the group.

This is a debt of honor which he owes, to collect which no bills are ever sent and no suits filed. On the contrary, it is a debt every payment on which brings new resources to the debtor himself as well as to all the other members of the profession.

No practicing physician can wholly withdraw from the professional group. He can-

not escape its assistance any more than he can escape his own heredity. He must use the knowledge it has provided and will continue to provide. He can only choose whether he will be an active, a passive, or an antagonistic member of his profession. As an active member he will gladly bring his individual contributions of time, money, and knowledge, knowing that, however large his contributions, they will be small indeed in comparison to what the profession will freely give him. He may become a passive member, taking what is offered and giving as little as possible in return.

Finally, he may try to withdraw from the group and refuse any formal allegiance or coöperation, rather standing to one side to criticize and to be antagonistic to those who are seeking to develop and improve the group for the benefit of the public.

It is probable that very few enter medical practice with the intention of adopting this latter antagonistic or individualistic attitude but by neglecting to affiliate with the group, the young physician unconsciously, mayhap, joins the unorganized. He finds himself associated, if not in actuality, at least in the minds of his fellow physicians within medical associations and in the eyes of the public, with those who to varying degrees have rejected professional standards.

The wealth of medicine is not in buildings, equipment, or any tangible things. This wealth lies in the tested, proven experience, in the accumulated scientific knowledge, in the ideals and traditions of high ethical personal qualities and the ever-advancing standards of medical practice and methods and in the confidence of the public in the numberless men and women of medicine as they strive to guard the public health and individual lives.

Few among us have failed to thrill, sometime in our lives, to the story of the "Three Musketeers" whose "all for one and one for all" were dedicated to the service of their king or country. There is a greater thrill for the student of medicine when he appreciates that the "all" of the wealth of the profession he has chosen is most truly given to him, the "one," in his service to the welfare of humanity. If the student or physician does not appreciate that he has a duty as "one" to contribute, through membership in a medical society, for "all," then he fails in a full appreciation of the service he

has undertaken when he became a physician.

In the end he shuts himself away from the chance to a voice in determining the standards of his profession and its relations to the public. He excludes himself from helpful coöperation in those times of great national emergency that offer an opportunity for helpful contributions to the community of which he is a member. He has a much less ready access to the ever-increasing store of scientific knowledge that is being developed, tested, and discussed within the professional associations and he loses the stimulation of contact with his confreres.

The unit of professional organization in the United States is the County Medical Society, membership in which automatically confers membership in the State Medical Society and in the American Medical Association.

The American Medical Association was organized in 1847. It now comprises some 2,000 county medical societies with an aggregate of more than 109,000 members. The legislative and policy-forming powers of the physicians who are members of county medical societies, for the states and for the United States, reside in bodies known as the House of Delegates, of the several states and of the American Medical Association. The members, or delegates, who compose the House of Delegates of the state medical society, are elected by the members of the component county or district medical societies within the jurisdiction of the state. The number of delegates to which a county medical society is entitled in the House of Delegates of the state medical society is determined by the number of members of the county or district society.

The members of the House of Delegates of the American Medical Association are elected by the constituent state associations and by the sections of the scientific assembly and of delegates from the Medical Departments of the Army, and the Navy, and the Public Health Service, appointed by the Surgeon-General of the respective departments.

The number of members of the House of Delegates of the American Medical Association to which state medical associations are entitled is determined by apportionment according to the active membership of the constituent associations except that the Army, Navy, Public Health Serv-

ice and the scientific sections are each entitled to one delegate.

County and state medical societies comprise a thoroughly democratic organization—the American Medical Association. The method of organization and representation is equally democratic in all matters pertaining to legislation and policy-forming for its members. The County Medical Society is the center of the medical activity within its jurisdiction. It is the means through which professional standards are advanced, and professional relations with public and private organizations are determined for the locality. The number and importance of such relations are constantly increasing. Such questions as care of the indigent sick, special provisions for medical care for low income classes, relations with public health departments, workmen's compensation, group hospitalization, contract practice and a growing number of similar problems cannot be properly dealt with by the individual physician acting alone. They are professional questions and can be properly handled locally only by the County Medical Society.

The individual can have an effective share in settling these questions only if he is a member of his professional group. As a member he has an equal voice and vote in determining relations of most vital interest to him and his patients. Through the County Medical Society he assists in selecting the delegates to the State Medical Society, which determines state-wide policies. Within recent years social and economic relations in medicine have invaded nearly every state legislature. Those questions concerning workmen's compensation, care of the indigent sick, public health, compulsory sickness insurance, and, in the immediate present, all the ramifications of the Social Security Act are raising a host of state administrative and legislative questions that affect the practice of medicine, the welfare of the medical profession, and the health of the public.

Every physician is interested in the outcome of these questions. The way in which they are settled will influence his life, work, income, and the welfare of his patients. The only opinion that can be valuable and helpful in the study and attempts to solve the medical phases of these problems is that of the medical profession itself. The only way by which that opinion can be made effective for all physicians is through the co-

operation of state medical societies with their national organization, the American Medical Association.

All the officers, bureaus, councils, committees and departments of the American Medical Association exist to carry out the policies fixed by its House of Delegates which, in turn, is the organ and creation of the entire membership acting through the County and State Medical Societies.

Many of these agencies are fact-finding, standardizing and educational bodies. They accumulate data concerning drugs, medical appliances, hospitals, education, ethics, physical therapy, apparatus, public health, medico-legal problems, medical economic conditions, and many other factors which contribute to better medical practice.

Every effort of the individual physician to acquire more medical information and to keep himself abreast of medical progress, every activity of medical organizations to encourage high standards of medical education, to disseminate health information, to distinguish the false from the true, to establish principles of ethical conduct is designed primarily to improve the medical and preventive medical services for all the people.

It is not by mere coincidence that the objects of the American Medical Association, found in Article 2 of its Constitution and the physician's responsibility, defined in the opening section of Chapter I of the Principles of Medical Ethics, are so nearly identical in meaning.

The objects of the Association are to promote the science and art of medicine and the betterment of public health. The first sentence of the Principles of Medical Ethics reads: "A profession has for its prime object the service it can render to humanity; reward or financial gain should be a subordinate consideration. The practice of medicine is a profession."

The objects and standards, which the medical profession has adopted and which it is continuously seeking to promote and elevate, are self-imposed. Although efforts to increase medical knowledge, to perfect the methods of medical education, to develop public health and preventive medicine, and to make good medical care available to everyone are associated with the names of many devoted individual physicians, past and present, it would be difficult to evaluate accurately and completely the accomplishments in all these and many other fields that must be credited to medical societies. The advances made by medical societies in the promotion of the science and art of medicine and the betterment of public health have been possible because of the devoted physicians who have worked together as members of these societies.

These physicians and their medical societies combine to contribute to the increasing stature of the medical ideal and will, in the history of medicine, assume their appropriate places in the list of men and organizations that devoted their energies and resources to the benefit of humanity.

HAVE YOU EVER WORRIED ABOUT A DOCTOR'S HEALTH?

(The Lapeer County Press)

We called at the home of a doctor one evening recently. He had been out for several nights. Early in the evening the doctor had dropped sound asleep on a davenport in the living room—sleeping the sleep of the exhausted. We apologized and suggested that we would call another time . . . when the phone rang. He arose as in a trance and walked over to answer it. "Yes . . . yes . . . some temperature? . . . well, I'll be over right away."

Slowly he turned around. He stared at us, rubbed his eyes, and said, "Hello, when did you come?" The man was hardly awake as he hustled into his hat and coat and with an apologetic, "I'll be back in a little while," he left for the home of some sick person.

Do you ever worry about your doctor's health? That isn't as ridiculous as it sounds. He may be

rigid in his dictates about how you shall protect your health; he may prescribe an exact routine which will prolong your years . . . but, he is absolutely and almost criminally careless about his own health. He has schooled himself to forget his own well-being to protect yours. He jeopardizes the future of his own wife and children to watch over yours.

"Yes," you reply, "but isn't he paid for it?" Is he? Doctors are short-lived. Their average expectancy of life is the lowest of the professional groups. They are valuable men in every community. We are not sure there is anything we can do about this but recognize it—and appreciate it. If socialized medicine and surgery becomes the rule, as some reformers would have it, we then would appreciate the family doctor.

UTERINE LEIOMYOSARCOMA WITH METASTASES TO THE LUNGS AND BRAIN

Report of a Case and Review of the Literature

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Detroit, Michigan

The incidence of malignant change in leiomyoma is generally considered to be relatively rare. Ewing² states that uterine leiomyoma very rarely become malignant and that he has seen but three malignant uterine myomas (in addition to two with local recurrence) during the preceding twenty years. He quotes Winter as having found none in 753 cases of myoma. Kimbrough⁵ found that sarcomatous degeneration of all uterine myomas which he reviewed between 1900 and 1933 came to but 0.76 per cent. Imhäuser,⁴ on reviewing the literature in 1924 regarding the incidence of uterine myosarcoma, reported that among 13 observers this incidence ranged between 0 to 9 per cent. Imhäuser himself found the incidence to be 6 per cent, his study being based on 208 patients admitted with myoma between 1918 and 1923. Nordland and Larson⁶ in 1933 stated that only about 1 per cent of uterine myoma became sarcomatous, while in 1936 Floris³ stated that sarcomas in uterine myomas were most frequent but he gave no figures regarding the frequency.

The incidence of intracranial metastasis of malignant leiomyoma, regardless of the primary, is apparently still more infrequent. Ewing² states that a group of leiomyoma become malignant and metastasize to the liver, lungs, kidneys, peritoneum and lymph nodes but makes no mention of intracranial metastasis. The primary, he states further, is usually found within the uterus, stomach, esophagus and intestines. Cohen¹ as late as 1932 was unable to find any report of metastatic intracranial leiomyosarcoma in the literature. He then went on to report the case of an elderly white male who had a primary leiomyosarcoma of the left kidney with metastases to both lungs, right kidney, adrenals, ileum, mediastinal and mesenteric lymph nodes and brain. A search into the literature, however, has been unsuccessful in the finding up to the present time, of any other report of metastatic intracranial leiomyosarcoma regardless of the site of the primary. Therefore, a case of uterine leiomyosarcoma with metastases to the lungs and brain is hereby submitted.

L. W., a married white woman, forty-eight years of age, was first admitted to Harper Hospital on March 31, 1936. Other than having been markedly constipated for years the patient had been in good

health until June, 1935, when she experienced pain in the right lower quadrant of the abdomen with an associated nausea for which she had an appendectomy with an uneventful recovery. In January, 1936, she developed a fresh rectal hemorrhage which was followed by minor periods of bleeding, increasing fatigue and a loss of about five pounds in weight.

The past history revealed that the patient had complained of frequent occipital headaches for the past several years. Occasionally she experienced some swelling of the ankles. In 1918 she stated she had an attack of influenza with an associated jaundice. In 1935 she had her tonsils and adenoids removed and later she underwent an operation for repair of perineal lacerations. Since the latter part of 1935 she had complained of a dry irritating cough with no pain in the chest. Her menses had been of the 28 day interval type with flow lasting about five days. These periods were usually associated with dysmenorrhea until the menses became irregular the past six months with occasional slight spotting. Her habits had been normal except for the smoking of cigarettes in excess. She was married to her first husband in 1906 and had two full term pregnancies. Her husband died of scarlet fever. One child died at the age of five years of tuberculous meningitis while the other died an accidental death at the age of 21 months. She also had a miscarriage during the third month of pregnancy, the cause for this miscarriage apparently being unknown. In 1916 she was married to her second husband. There were no pregnancies following this second marriage. The patient's family history was negative.

Examination.—The general physical examination was negative except for a blood pressure of 172 systolic, 88 diastolic; and for a scar in the right lower quadrant of the abdomen. Temperature, pulse and respiration were normal. Roentgen examination of the chest was negative except for a small area of calcification on the right side at the level of the sixth rib posteriorly. There was also some thickening of the pleura on the left side. Fluoroscopic and roentgen examinations following a barium enema showed the presence of a megacolon. Furthermore, there was seen a sixth lumbar vertebra with an anomalous bat-wing process on the left side and definite irritative changes in both sacroiliac joints. The electrocardiogram was normal. Laboratory examinations which included a urinalysis, complete blood count, blood sugar and non-protein nitrogen determinations, Kahn reaction, van den Bergh and icteric index tests and blood calcium and phosphorus determinations were all normal. Stool examination showed the presence of occult blood.

Note: We are indebted to Flinn F. Morse, M.D., and Lawrence Reynolds, M.D., pathologist and roentgenologist respectively, at Harper Hospital, for the histo-pathological and radiological studies in this presentation.

Treatment and Course in Hospital.—On April 4, 1936, the patient was given a spinal anesthetic for the megalocolon with a good result. She was discharged on April 9, 1936.

On March 2, 1937, the patient was again seen with an interval history of pain in the right side of her abdomen since January, 1937. This pain was not associated with the taking of food nor with nausea or vomiting. Occasionally she experienced chilly sensations with a feeling of fainting. She also complained of a peculiar tightness in the chest, stating that it felt as if the chest walls were being pulled together. Three weeks before her re-admission she had a severe uterine hemorrhage accompanied by marked pain in the lower abdomen and by extreme weakness. Physical examination at this time revealed tenderness in the right lower quadrant of the abdomen without spasm. The blood pressure was 130 systolic, 80 diastolic. The gynecologist reported, however, "fibroid uterus possibly associated with stenosis of the cervical canal giving rise to colicky pain on attempt to expel uterine contents." Laboratory examination showed a normal blood count except for a hemoglobin of 69 per cent (Sahli). Urinalysis, blood sugar and non-protein nitrogen determinations and Kahn reaction of the blood were all negative.

Two days following her re-admission the patient had, under nitrous oxide and ether anesthesia, a pan-hysterectomy and bilateral salpingo-oophorectomy. The uterus was found to contain many fibroid nodules which had a malignant appearance. Histological examination of sections taken from these nodules was reported as follows: "Multiple leiomyofibromata. One of the nodules has undergone pronounced sarcomatous transformation. Chronic endocervicitis, procidentia and cystic glands. There is also some sclerosis of the villi in the oviducts and hyalinization of the ovary." (Dr. Morse)

On March 24, 1937, roentgen examination of the chest revealed diffuse metastatic areas throughout both lung fields. The heart and aorta were normal and there were no abnormal mediastinal shadows nor metastases to the bony structure forming the chest. (Dr. Reynolds)

The patient was thereupon placed on a course of therapy which included the intravenous injection of colloidal lead phosphate and deep roentgen-ray irradiation according to the table below:

March 24—700 roentgen units in air to left lateral pelvis.
 March 25—700 roentgen units in air to right lateral pelvis.
 March 26—600 roentgen units in air to posterior pelvis.
 March 27—700 roentgen units in air to anterior pelvis.
 March 29—104 mgm. colloidal lead by intravenous injection.
 March 31—700 roentgen units in air to chest; left posterior oblique.
 April 1—700 roentgen units in air to chest; right posterior oblique.
 April 2—800 roentgen units in air to chest; anteriorly.

The patient was discharged on April 4, 1937, with a diagnosis of "myosarcoma of uterus with metastases to lungs."

The patient was re-admitted for the third time on July 4, 1937, with an interval history of frontal headache of three weeks' duration, visual disturbance beginning on June 29, and disturbance of mentality which had seemed "hysterical" in nature. She had exhibited episodes of an increased psychomotor activity bordering on an agitated depression. Physically, however, she had improved and had gained in weight. The general physical examination was entirely negative except for a temperature of 99.2 degrees Fahrenheit. The ophthalmologist reported that the patient could only count fingers at one

meter with each eye separately. He found the external examination of the eyes to be negative. The pupils reacted to light and accommodation. The fundi showed some blurring of the optic discs while in the right fundus he reported the presence of two small brown spots along the superior temporal artery. The visual fields showed a right homonymous hemianopsia.

The neurological examination was as follows: The patient was right handed. Station and gait were normal. There were no tremors, fibrillations, localized weakness or abnormal associated movements. The equilibratory and non-equilibratory tests were carried out satisfactorily. There was no impairment in the doing of skilled acts. Speech presented a mixed sensory and motor aphasia. All tendon reflexes were present, active and equal, but the abdominal reflexes were all absent. There was a questionable Babinski sign on the left side. Sensory examination was negative. The pupils reacted sluggishly to light while ophthalmoscopic examination revealed some blurring of the discs bilaterally without papilledema. There was present grossly a right homonymous hemianopsia. The Rinné test showed a reversal of the normal formula on the right in that bone conduction could be heard longer than air conduction. Examination of the external auditory canals and ear drums were negative. The remaining cranial nerves were normal. Mentally the patient showed some impairment of memory for recent as well as for remote events. She was disoriented for time and place but not for person. She seemed somewhat apprehensive, especially regarding her aphasia. There were no apparent delusions or hallucinations. She complained of inability to see, or headache and of a "whirling" sensation in the head. At this time she was not agitated, nor was there a marked increase in her psychomotor activity.

Laboratory examination showed a mild secondary anemia. Urinalysis and blood sugar and non-protein nitrogen determinations were normal. Roentgen examination of the chest revealed a definite increase in the size of the metastatic nodules as well as in their number. Both lung fields were involved especially in the lower lobes. (Dr. Reynolds).

The patient was discharged on July 10, 1937, with a final diagnosis of "myosarcoma of the uterus with metastases to lungs and brain."

On July 11 the patient complained of an increasing inability to see. On July 16 she had a convulsive seizure characterized by spasticity of the right upper and lower extremities with a positive Babinski sign on the right. On July 21 she had another convulsion in the morning with spasticity of the right side of the body and with marked difficulty in breathing. Her breathing became progressively more difficult with an associated cyanosis until late in the afternoon when she had another convulsion at which time she expired.

Autopsy.—Following a midline incision the abdomen was explored first. The tissues seemed dry throughout. The liver had two brown pin-point spots visible, but otherwise there were no signs of malignant areas in the abdominal cavity. The kidneys were normal in size and the capsules stripped with ease. There was a small amount of scar tissue about the sites of the appendectomy and hysterectomy. The mesentery showed several hard calcified nodules which resembled old calcified tubercles. The chest was opened and the heart found to be contracted, small and normal. There were no signs of endocarditis, pericarditis, myocarditis, or tumor metastases. Both lungs were peppered with metastases ranging in size from one-eighth to one and one-half inches. The mediastinal lymph glands were

normal in size and not enlarged. There was no evidence of tuberculous processes. Sections were taken for microscopic examination from the kidneys, adrenals, pancreas, liver, mesenteric nodules, spleen, lungs and gastro-intestinal tract. The skull was opened and the brain removed with the pituitary

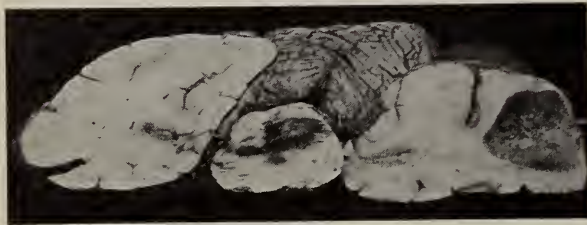


Fig. 1. Metastatic leiomyosarcoma in left occipital lobe. Well demarcated but not encapsulated. Necrotic in center with peripheral hemorrhagic areas.

gland along with the upper portion of the cervical spinal cord. The skull, dura and venous channels showed nothing unusual.

Examination of the brain after it had been placed in hardening solution showed a mild flattening of the convolutions of the left cerebral hemisphere. No masses were seen externally and as far as could be determined there were no areas of local softening. On section there was some displacement of the corpus callosum to the left and the centrum semi-ovale seemed somewhat increased in size on the left as compared to the right. There was thought to be some softening of the white matter in the left parietal region as compared with the right side. In the left occipital lobe was seen an ovoid tumor mass which measured from two to two and one-half centimeters in diameter. (Fig. 1). The posterior limit of this tumor mass was three and one-half centimeters anterior to the left occipital pole, while anteriorly the mass had ruptured into the occipital horn of the left lateral ventricle. This mass was brownish-gray in color, quite soft and somewhat necrotic in the center with some peripheral hemorrhagic areas. It was well demarcated from the surrounding white matter but there was no capsule present. Laterally the tumor tissue came within less than one millimeter of the external surface of the temporo-occipital cortex, but at no point did it make its appearance on the surface of the brain. Medially it involved the superior and posterior aspects of the left temporal lobe, the inferior margin of the cuneus and most of the lingual gyrus in the left occipital lobe. The cerebellum and brain stem did not show any evidence of the presence of tumor. Sections for microscopic study were taken from the tumor mass, Broca's area on the left side, left parietal lobe, midbrain, pons and medulla.

Histo-pathology. — (All sections stained with hematoxylin and eosin.)

Sections from the primary tumor in the uterus: (Fig 2) The tumor is a very histoid and highly anaplastic sarcoma. There are multiple areas of necrosis and myxomatous change. The nuclear structure is highly polymorphous and there are many giant cells of various forms and shapes with varied nuclear content. All stages of transformation from non-striated muscle to undifferentiated sarcoma cells are found in the various fields.

Sections from the lungs: (Fig. 3) In the lungs the tumor presents the appearance of a highly malignant, rapidly infiltrating growth, but the myosarcomatous character of the tumor is well preserved. The pulmonary metastases are not so

anaplastic in structure as the nodule in the brain but still show very clearly the myosarcomatous nature of the primary.

Sections from the pancreas, spleen, kidneys, adrenals, intestines, and mesenteric nodules were negative.

Sections from the liver: There is present a low-grade capsular cirrhosis with fibrosis of Glisson's Islands.

Sections from the brain: (Fig 4) The brain metastasis consists of various nodules of highly vascular, large-celled sarcoma of the spindle and polymorphous types. There are large areas of necrosis due to thrombosis of the larger vessels and the blood vessels have in part been replaced by the rapid proliferation of cells. The metastases are highly polymorphous in their cell type and bear very little resemblance to the structure of the primary tumor. The brain metastases are much more anaplastic than those in the lungs, have lost their myomatous features and contain multiple giant cells. Without the examination of the primary and the lung metastases the myosarcomatous nature of the brain secondaries would not be apparent.

Sections from Broca's area, left parietal lobe, midbrain, pons and medulla failed to show the presence of tumor cells. (Dr. Morse.)

Discussion

Several interesting points were brought to mind by the above case. First of all, the rarity of sarcomatous degeneration in a leiomyoma has been cited, even though myomata occur quite frequently. Secondly, no intracranial metastasis of a malignant uterine leiomyoma could be found in the literature. It is well known that pulmonary neoplasms metastasize very frequently to the brain and consequently, whenever a patient presents himself with a history of a rapidly growing brain tumor, the lungs and mediastinum should always be thoroughly examined for any evidence of a primary growth. In the above patient the metastases occurred first in the lungs and then in the brain and it is quite probable that no intracranial metastases would have occurred had the lungs not been first involved. Therefore, it is a good rule to obtain adequate neurological examination in any patient with a malignant neoplasm who shows any mental change whatsoever. Especially should this rule be followed if it is known that the neoplasm is pulmonary, whether primary or metastatic.

Metastatic brain tumors are usually multiple and frequently tumor cells are seen scattered throughout the brain. The examination of the brain in the above case was unique in that only a solitary lesion could be found and that there was no microscopic evidence of tumor cells elsewhere even though the left parietal lobe had felt soft

on gross examination of the cut section. Although the ophthalmologist reported the presence of two brown spots in the right fundus, the fundi, unfortunately, were not

arise through malignant change of connective tissue of the leiomyoma while on the other hand others believe that an ordinary type of malignant change in muscle cells

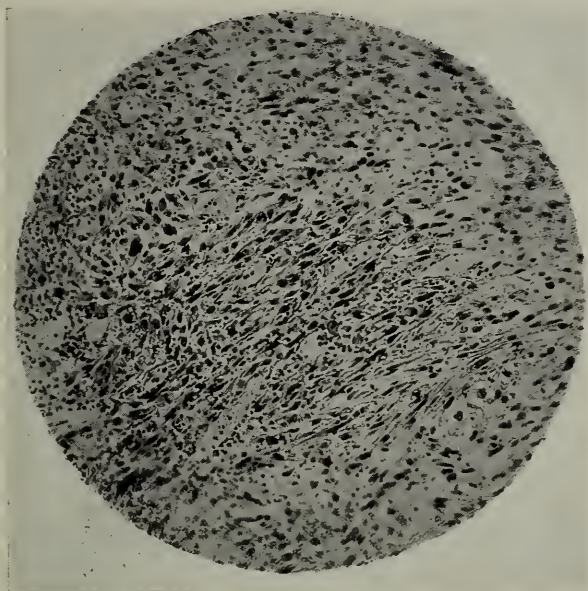


Fig. 2. Section from primary tumor in uterus showing the anaplastic nature of the sarcoma with giant cells and polymorphous nuclear structure.

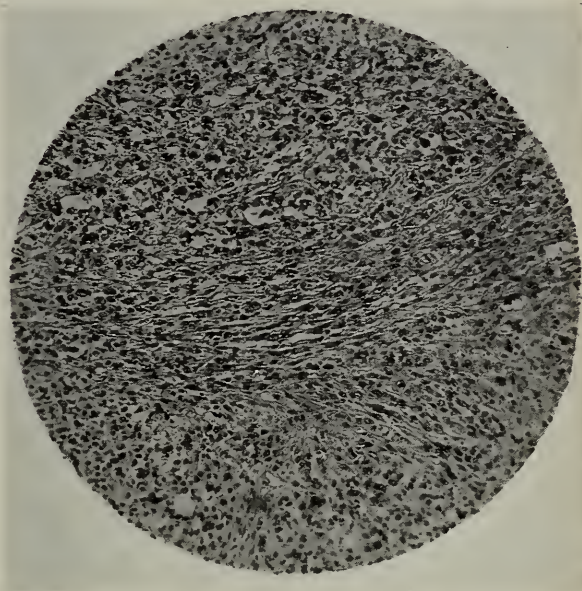


Fig. 3. Section of metastasis in lung showing the myosarcomatous characteristics of the tumor.

included in the autopsy and the significance of these spots must remain unanswered. It is interesting to note that the only other metastatic intracranial leiomyosarcoma, reported by Cohen,¹ was characterized also by a solitary lesion in the left occipital lobe.

There was one interesting symptom which this patient presented and which has been observed by one of us (W.H.G.) for some time, and that is a characteristic tightening in the chest in patients with pulmonary metastases. This has occurred often enough to be considered an early symptom in these patients.

The immediate cause of death in this patient seems fairly evident and was due most likely to the rupture of the tumor into the left lateral ventricle, the actual time of the rupture probably coinciding with the first convulsive seizure. The only positive localizing features prior to the first seizure were the right homonymous hemianopsia and the mixed aphasia and both of these are self-explanatory in view of the pathology.

The pathogenesis of myosarcoma is apparently still debated. Ewing² states that some observers believe many myosarcomas

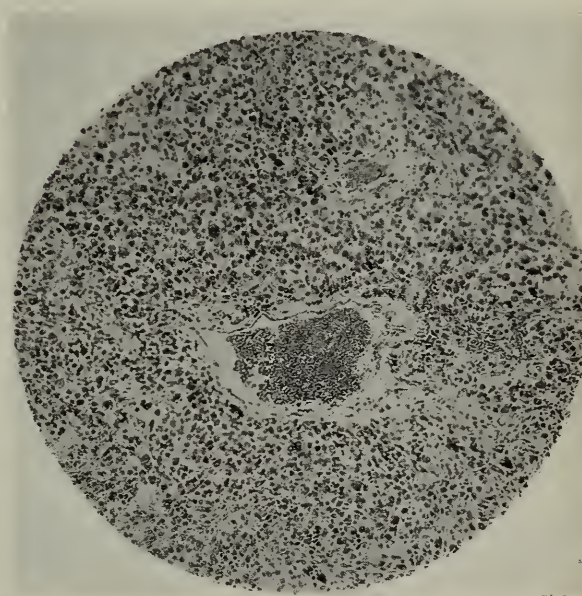


Fig. 4. Section of metastatic tumor tissue in brain. The tumor cells are more anaplastic than those in the lung and have lost their myomatous features. The vascularity and giant cells are also seen.

takes place. Novak and Anderson⁷ believe that uterine sarcomas usually have a myogenic origin from undifferentiated muscle cell elements. Nordland and Larson⁶ state that myosarcomata are myomata which have undergone sarcomatous metaplasia and that the cell types of a myoma which

are fibroblasts and leioblasts easily undergo malignant metaplasia. Floris³ suggests that sarcomas in myomas arise from immature elements in the heart of a preëxistent myoma or from a single primary tumor from the same immature muscular and connective tissue elements; i.e., from myoblasts and fibroblasts. He states further that this tumor should not be considered secondary but as sarcoma in myoma, intramyomatous, and that one should not speak of degeneration or transformation or sarcomatous destruction of the myoma.

In our patient the pathologist reported all stages of transformation from non-striped muscle to undifferentiated sarcoma cells. This would lend support to those who believe that a malignant change takes place in the muscle cells themselves. Furthermore, in the process of metastasis the tumor cells became more malignant. The cells in the pulmonary metastases were more anaplastic than those taken from the region of the primary, while in the brain the cells became still more polymorphous, anaplastic and rapidly proliferating, so that they had practically lost their resemblance to the cells in the primary tumor.

Summary

The incidence of malignant change in leiomyoma is rare while intracranial metas-

stasis of a leiomyosarcoma is practically unknown.

A patient with uterine leiomyosarcoma with pulmonary and intracranial metastases is presented. It is probable that the intracranial metastasis occurred by way of the pulmonary metastases rather than directly from the primary tumor.

An interesting early symptom of pulmonary neoplastic metastasis is suggested, consisting of a peculiar tightening in the chest as if the chest walls were being pulled together.

The finding of all stages of transformation from non-striped muscle to undifferentiated sarcoma cells in the primary tumor supports the belief that when myomata become sarcomatous the malignant change takes place in the muscle cells and not in connective tissue cells.

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HEMORRHOIDECTOMY UNDER REGIONAL ANESTHESIA*

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The surgical removal of internal and external hemorrhoids under some form of non-sleeping anesthesia is now an accepted form of practice. The average patient demands surgery under such anesthesia almost as a routine. It is no longer necessary to stress the advantages of local, caudal or spinal anesthesia for surgery of the ano-rectal region. The safety, convenience and peculiar adaptability of these forms of anesthesia for the surgical treatment of ano-rectal diseases is today an accepted fact. No longer is it necessary for the proctologist or the surgeon to struggle with a patient not thoroughly anesthetized on account of the timidity of the anesthetist, or to be in a constant state of apprehension on account of the incompetence of this individual. The complete relaxation obtained through the employment of local or caudal anesthesia, particularly when administered by one of skilled experience, provides an infinitely better prepared

operative field than can be obtained under any form of general anesthesia. This last statement might be modified only if infiltration is used to supplement general anesthesia in producing local relaxation impossible otherwise.

The technic presented for hemorrhoidectomy under regional anesthesia has been employed by us and many other proctolo-

*Read before the 73rd Annual Meeting of the Michigan State Medical Society, Detroit, September, 1938.

gists with slight modification for over thirty-five years. The employment of regional anesthesia for all operations in the ano-rectal region below the recto-sigmoid, obviates the necessity of divulsion either manual or by the use of the vivale speculum. The relaxation of the muscles of this region is complete and is accomplished without the trauma, caused in most of the patients when manual or instrumental divulsion is performed under general anesthesia.

While many anesthetic drugs are used for the production of local anesthesia, novocaine still stands at the head of the list. It, however, is supplemented by other anesthetic agents when one wishes to secure prolonged postoperative anesthesia.

For preliminary anesthesia—a $\frac{1}{2}$ to 1 per cent solution in Ringers' solution is employed. A No. 20 c.c. glass syringe fitted with a flexible rustless steel needle 1.5 to 3 inches long, and of 20-24 gauge is employed. The sharper the point of the needle the more painless the puncture. For the preliminary sphincter block the 1 per cent solution is employed. A point $\frac{1}{2}$ inch posterior to the posterior commissure of the anus is selected. A quick thrust at right angles to the skin surface is made instead of in the oblique direction. This makes the puncture painless, and immediately after puncturing, considerable pressure is made on the syringe piston. The needle is then directed in a V-shaped direction, first on one side, and then on the other, until the circum-anal integument is slightly distended. This injection is subcutaneous and never intradermal.

Injections into the skin itself account for those occasional cases of slough which are reported by some operators. Most cases of slough, however, are produced when epinephrin is added to the solution. This drug is never used in personal practice. After skin anesthesia, the needle is inserted behind the sphincter and in the post-ano-rectal space on either side for a distance of 1.5 inches. From 5 to 10 c.c. of the solution are used. If the operation is not to be prolonged, the 0.5 per cent solution is strong enough for the subcutaneous injection. In two or three minutes complete relaxation of the anal sphincter occurs. An added injection under each hemorrhoid is advantageous. This should extend up to,

and beyond the juncture of the pedicle of the normal mucosa. All external hemorrhoidal tags or hypertrophied folds should be distended with the 0.5 per cent solution.

This type of anesthesia in the hands of a skilled operator will suffice for all external hemorrhoids and for the majority of cases of internal as well.

Caudal Anesthesia

This is applicable for all cases where infiltration anesthesia is employed, but can be used also for some fistulas and abscesses, and for prolapse; in fact for any pathology lying below the recto-sigmoid. It has the advantage over infiltration anesthesia in, that one puncture is sufficient for complete anesthesia and relaxation in over 90 per cent of the patients. In the occasional case where caudal anesthesia is not completely effective it can be supplemented by infiltration.

Its technic is not difficult. The patient is placed on the operating table in the same position and prepared the same as for infiltration anesthesia. Palpation from the sacro-coccygeal juncture upward will disclose two bony prominences—the sacral cornua—on either side of the median line; the finger tip drops into a triangular depression between these. Only in the extreme obese patients is this triangle difficult to locate. From 20-40 c.c. of a 2 per cent novocaine in Ringers' solution is required for the production of caudal anesthesia. The skin is punctured in the center of this triangle, and injection is immediately begun. The needle is pressed through the tissues until one meets the resistance of the membrane covering the sacral hiatus.

When this is punctured the needle immediately enters a free cavity and is advanced to the hilt. Before injecting into the caudal canal, it is well to aspirate in order to be assured that one has not punctured a vein. The appearance of blood on aspiration would indicate this, and the position of the needle must immediately be changed until aspiration does not produce blood.

The injection then proceeds until piston pressure indicates that the canal is filled to distention. If after injecting a maximum of 45 c.c. the canal does not seem to be distended, enough sterile water can be injected to produce definite pressure. Failure to enter the canal accounts for inability to produce caudal anesthesia in many instances.

If, on injection, a wheal is produced where the injection has been made, the canal has not been entered. It is sometimes difficult even by skilled operators to enter the canal in the extremely obese. If the patient complains of a cramping sensation of the dependent leg, usually the left, one may be sure that good anesthesia will follow. It requires from $7\frac{1}{2}$ to twelve minutes to produce complete relaxation and anesthesia. Exceptionally, twenty minutes, may be necessary. Skin anesthesia usually follows in three to five minutes after relaxation of the sphincter muscles is complete.

Operative Technic

The circumanal skin at, or just inside of its merge with mucous membrane is grasped with triangular forceps and traction made at "twelve, three, six and nine o'clock." This traction is maintained by weights attached to the anterior and left lateral forcep, and a weight and chain to the right lateral forcep. The posterior one is maintained in position by attaching it to the canvas cover with a clip or Allis forcep. While in a great majority of cases there are three principal hemorrhoidal masses located respectively in the right anterior, right posterior and left lateral areas, one or more secondary hemorrhoids may also be present. Each hemorrhoid is grasped in turn with the hemorrhoidal forcep, and a blunt pointed ligature carrier threaded with number two chromic catgut is inserted just above the juncture of the hemorrhoid with normal mucosa deep enough to encircle its blood vessels. The ligature is firmly tied and the same procedure carried out with the other hemorrhoidal tumors. These ligatures, which are mostly submucous, while the knots are tied on the mucous surface, render the operation almost bloodless. The principle of tying before cutting is employed.

Starting with the most dependent hemorrhoid, it is grasped in the same manner as when the ligature was placed. Cutting from within, outward, in order to avoid undercutting the ligature, an ellipse of mucous membrane comprising not over three-quarters of the presenting hemorrhoid is excised. It is quite proper after making the first cut from within outward to complete the excision in the opposite direction.

The edges of the mucosal wound are lifted up with thumb forceps and all varicose veins destroyed underneath the membrane and removed by severing them. Each hemorrhoid is treated in turn in like manner. The sphincter or its sheath should be exposed in each wound; this prevents injury to this important muscle, and also insures the removal of all of the varicose veins which compose the hemorrhoid. It is well to examine for bleeding points and ligate any spurting vessels. If the original ligatures have been properly placed there will be very little of this. The triangular forceps and weights are now removed. The hypertrophied external skin folds and any cutaneous tags are then excised. This is accomplished by grasping the hypertrophied fold at its outer extremity with thumb forceps and excising it and raising it up from without inward, radial to the anal aperture. These external wounds usually join with the internal in the corresponding locations. Any spurting vessels are ligated with plain catgut the same as in the removal of the internal hemorrhoids. Each wound must be tapered at its outer extremity and no folds, jagged edges or cups allowed to remain. A tapered wound assures perfect drainage and rapid healing.

In order to secure good postoperative anesthesia, about ten c.c. of a 0.5 per cent solution of either puinine urea chloride, or diothane hydrochloride is injected underneath the skin completely surrounding the anus. This injection is made under, and not into, the integument. One or two c.c. should be injected into each postero-lateral quadrant to anesthetize the sphincter. A strip of soft rubber tissue covered with some analgesic ointment is inserted. The formula of the one used in our practice is as follows:

R Benzocaine	4 gms.
Chloretone	4 gms.
Thymol Iodide	4 gms.
Emollientine (P.D.) to make.....	120 gms.
Dispense in nozzled tube.	

A pressure dressing is applied, the pads being held in place by two adhesive strips, and a wide T-binder is applied. The postoperative anesthesia produced will last usually from one to five days, and the patient's period of hospitalization runs from four to seven days.

PERNICIOUS ANEMIA

Its Prevalence and Adequate Treatment A Review of Two Hundred and Twenty-Three Cases

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Since the advent of liver in the treatment of pernicious anemia in 1926, the tendency has been to consider this disease a closed chapter so far as therapy is concerned. However, from the patients seen in our clinic, it is evident that too often the condition is not recognized unless advanced, and even when correctly diagnosed, is poorly treated. Our object in reviewing our series of two hundred and twenty-three cases at the Henry Ford Hospital is to stress, or reëmphasize, some of the fundamental facts about the disease so often overlooked:

First, in spite of known specific therapy, which has materially decreased the mortality, pernicious anemia prevails in only moderately decreased numbers.

Second, only when treatment is adequate and continuous can it be considered successful.

Third, the presence of infection complicates the treatment.

Fourth, central nervous system changes increase therapeutic requirements, but if not already present, can be prevented.

We need not dwell upon a description of the disease in its entirety, including, for example, etiology, diagnosis and prognosis. The development of our knowledge concerning these topics, which Sturgis⁵ rightfully calls one of the most brilliant chapters in the history of medicine, has resulted from the tireless efforts of earlier workers, particularly Whipple, Minot, Murphy and Castle. Their pioneering work has made the control of the disease relatively easy if only what they teach be properly applied.

Incidence of Cases: Age; Sex

From January, 1926, to January, 1938, we have record of two hundred and twenty-three cases with a definite diagnosis of pernicious anemia. This is an average of two and two-tenths in every thousand new cases registered during that period, as compared to three to four out of one thousand cases mentioned by Sturgis⁶ in earlier records. Of these eighty-six per cent had neurological symptoms or findings, ranging from simple numbness and tingling of the extremities to marked ataxia.

There were one hundred and twelve females and one hundred and eleven males. This corresponds with more recent reports of larger series. Sturgis,⁶ without giving actual figures, says the two sexes are

affected with equal frequency. Goldhamer² reported five hundred and eighty cases and commented that the disease occurred in man or woman with equal frequency. Even as early as 1929, Riddle,⁴ in his manual for patients with pernicious anemia, says the disease is equally common in men and women. Yet, older publications and textbooks tell us that the disease is more common in the male. Thursfield⁷ says males predominate two to one. Cabot¹ states that of eleven hundred and fifty-seven cases available, seven hundred and twenty-four were males, four hundred and thirty-three females; again almost two to one.

The age range in our series was seventeen to eighty-one years. Although most of the cases were forty years or over, we have discovered an increasing number in the early thirties, or even younger. To illustrate, of the one hundred and eighteen cases seen between 1926 and 1931, twelve, or ten per cent, were under forty years of age, three were under thirty, the youngest twenty-nine; and of the one hundred and five cases between 1931 and 1938, seventeen, or eighteen per cent, were under forty years, ten were under thirty-five, five under thirty, and the youngest seventeen.

TABLE I.

Year	Total Cases	Total Cases	Total Cases
	Pernicious Anemia	Known Dead	Known Living
1926	31	9	6
1927	22	7	6
1928	23	6	6
1929	15	2	3
1930	27	1	13
1931	21	4	9
1932	12	1	6
1933	9	2	5
1934	9	2	6
1935	13	1	8
1936	25	1	21
1937	16	0	16

Table I is a record of the total number of cases of pernicious anemia, the number

known to be dead, and the number still living for each year of the period under consideration. The total cases are about in proportion to the total new cases registered at the hospital, excepting for the four-year period from 1926 to 1930. During this time pernicious anemia cases decreased in spite of an actual increase in total registration. This may possibly be explained on the basis of the advent of liver in the treatment. As so often happens with a new method or preparation, the populace as a whole began emphasizing liver in the diet. Hence, there may have been a delay in the development of the usual signs and symptoms of pernicious anemia until the wave of enthusiasm had passed.

Mortality

Of our total series of two hundred and twenty-three cases, eighty-two were treated elsewhere so that of these we have no complete record, either of treatment or its results. It would doubtless be safe to assume that many of the older patients of this group are dead. However, we have only recorded total cases diagnosed, as given in Table I, and then made a thorough study of the cases actually known about, living or dead.

It will be noted that the general trend has been to less deaths in proportion to total cases as the years have progressed and specific therapy has been perfected. This is made more than apparent when the cases are analyzed more in detail. For example, of the nine known dead for 1926, seven died of pernicious anemia. Of the seven deaths in 1927, four resulted from the disease itself. Since that time only one patient has died directly from pernicious anemia, late in 1936. This was one of the severe cases still seen occasionally, with anemia so marked that there was mental confusion and symptomatic myocardial insufficiency.

On admission to the hospital this patient, a woman of fifty-eight years, had a red blood cell count of 830,000 per cubic millimeter and a hemoglobin reading of eighteen per cent. Death occurred five hours after admission. Permission for autopsy was refused so that we have no knowledge of some possible terminal complication, such as intracranial hemorrhage.

Of the thirty-six known to be dead, per-

nicious anemia was the primary cause of death in twelve, or thirty-three and one-third per cent. As in Sturgis' cases,⁵ these included patients who already had advanced central nervous system changes, or failed to get proper therapy. The others died of various conditions commonly causing death at these ages: broncho-pneumonia, seven cases; hypertensive cardiovascular renal disease, four; chronic myocarditis, three; carcinoma of the stomach, three; coronary occlusion, two; chronic nephritis, two; fracture of femur with terminal broncho-pneumonia, erysipelas, and adenocarcinoma of the ovary with metastases, of each, one.

Adequate Therapy: Its Meaning

This brings us to some comment regarding the status and mode of therapy of those still living. We have record of one hundred and five cases, forty-seven per cent of the total series. It is interesting that three of the younger patients, one twenty-seven, one thirty-six, and one thirty-seven years of age, came for relief from difficulty in walking and marked paresthesias, having no knowledge that anemia was, or ever had been, present. The neurological symptoms and findings were typically those of subacute combined sclerosis of the spinal cord; namely, numbness and tingling of the hands and feet, spasticity of the muscles of the lower extremities, loss of vibratory sense, and ataxia. Response to liver therapy was very gratifying. Also, two of these have gone through the common experience of a relapse due to inadequate therapy. Then the blood was typical for pernicious anemia, with color index well above unity, marked variation in size and shape of red cells, and the presence of many macrocytes.

In the earlier group there are eight patients who still take whole liver by mouth only. One, a woman of sixty-three years, uses one to two pounds a week and continues to do very well after more than six years of this treatment. The others use one-half to one pound of liver daily. One man takes practically all of it raw. Most of the remaining ninety-seven also take small amounts of liver by mouth. However, most of these have become so tired of taking it through the years until potent extracts were available, that they now depend almost entirely upon extracts, either by

mouth, parenterally, or a combination of these two methods. In the last three years we have had only two patients who objected to liver extract injections. When cost was considered, even these two withdrew their objection. We have used almost exclusively one preparation in which one cubic centimeter of the extract represents one hundred grams of whole liver, or fifteen U.S.P. units according to the new standard of measurement.

The usual procedure is to give an intramuscular injection of four cubic centimeters of the extract the first day, three cubic centimeters the second, two cubic centimeters the third, and one cubic centimeter daily thereafter for one week, observing the response by daily reticulocyte counts. This is then followed by an injection of one cubic centimeter a week until the blood count is normal; that is, red cells from four and one-half to five million per cubic millimeter of blood, and hemoglobin ninety to 100 per cent. Six to eight weeks is the usual period required for this. Thereafter the average number of one cubic centimeter injections needed to maintain the blood count at a normal level is two a month.

Early in the treatment with intramuscular liver extract, the smaller doses recommended by manufacturers seemed temporarily very satisfactory. But we now feel certain that the more generous doses mentioned above are advisable, in that a better reserve is built up in the body. We also make certain that enough of all the factors needed are given; namely, the one which controls the oral lesions, the hematological factor, and a third which helps the parasthesias.

Infection and Adequate Treatment

This average procedure needs to be varied, of course, depending upon the status of the case when first seen. Fewer injections are used if the blood count is not low, more if it is very poor or complications are present. Among the latter we wish to particularly include infection. It has been our experience that with infection present, more of a potent liver extract is required, both for restoration and for maintenance of a normal blood count. We also learned from two cases that it is inadvisable to attempt radical removal of focal infection, such as abscessed teeth, until the blood count is normal.

One of these, a woman aged forty-seven years, made a very good initial response to liver extract injections, the reticulocyte count reaching 16 per cent on the sixth day of therapy, but the original red blood count of two million per cubic millimeter and hemoglobin reading of 48 per cent had not changed when extraction of badly infected teeth was started. She did very poorly thereafter, losing her appetite entirely and becoming very weak. In spite of intensive treatment, she expired of bronchopneumonia.

The other patient, a man aged forty-nine, also did very well on liver therapy, but apparently extraction of infected teeth was carried out too soon, with the result that, in spite of continued intensive liver treatment, the red blood count and hemoglobin remained stationary at 75 to 80 per cent for a full month after extractions were completed.

Neurological Complications and Adequate Therapy

Also in cases with neurological changes do we insist on enough medication. We have three patients who have not been faithful about treatments at all, and yet have developed no serious neurological complications. But most cases not properly treated do show evidence of increased spinal cord changes, so that more than just enough treatment is preferable. We have every reason to feel, as does Needles,³ that by giving enough specific treatment to keep the blood count normal all the time, cord changes can usually be prevented in those patients who have not yet developed complications. In fact, we have several patients whose symptoms due to central nervous system damage actually lessened or disappeared. One striking example is a man of fifty-six years who was wholly unable to walk when admitted to the hospital. Now, eighteen months later, he is working a part of the time at his old occupation of brick-laying. Our feeling is that the presence of spinal cord changes is a definite indication for more intensive liver therapy, regardless of good progress.

In any case, one needs to be guided entirely by response to treatment. The secret of success lies in giving enough of a potent substance to produce and maintain a normal blood count all the time. When feeling well again it is very difficult to convince

even intelligent patients of the need for continuing treatment. Only when another relapse occurs do they appreciate that their illness is one for which constant specific treatment is as important as a regular daily intake of an adequate diet; that only in this way can damage to the spinal cord be avoided.

Naturally, other measures of therapy are also helpful, especially in cases such as the bricklayer mentioned above. At least a portion of his improvement must be attributed to physiotherapy in the form of massage and corrective exercises.

In these cases, too, we feel that foods rich in vitamin B should be emphasized. Often some potent form of this vitamin is given by mouth, at least off and on. Special diets otherwise are practically never necessary. Although it is not uncommon to find anorexia during a relapse, soon after starting liver extract injections a good appetite returns. Only if a deficiency of some kind is present is more than an ordinary diet needed.

The patient that died soon after admission failed to have a fractional gastric analysis. All others had complete absence of free hydrochloric acid. However, we do not consider achlorhydria sufficient reason for giving acid. The fact is, few of our cases have needed it as an accessory to specific therapy.

A common experience with patients on liver therapy is that the hemoglobin reading of the blood lags behind the red blood cell count. Then we invariably add iron therapy until a satisfactory level of hemoglobin is reached and maintained.

Finally, a word should be said about blood transfusion. Since potent liver extracts have been available for intramuscular injection, we have given a transfusion for pernicious anemia only once. In this case red blood count and hemoglobin were so low that the slightest change from a prone to a sitting position would result in syncope from cerebral anoxemia. There was marked mental disturbance and, to prevent further more serious damage, one transfusion of five hundred cubic centimeters of citrated blood was given with good results. Yet, another case with anemia equally severe and the same mental symptoms, did equally well on intensive liver therapy alone. We need to keep in mind that blood transfusion still has a place in the treatment of the rare

severe case of pernicious anemia when it reaches the stage producing cerebral anoxemia. But with potent liver extracts for parenteral use now available, this one time only method of therapy is rarely necessary.

Conclusions

1. The number of cases of pernicious anemia in proportion to the total cases registered at the Henry Ford Hospital between 1926 and 1938 is only slightly below the proportion recorded in larger series previous to that period.

2. Pernicious anemia need not be a fatal disease, provided adequate specific therapy is given. This means keeping the blood count normal all the time; namely, hemoglobin reading of 90 per cent or over and red cell count between four and one-half and five million per cubic millimeter.

3. Of the thirty-six patients known to be dead, twelve, or one-third, died of the disease itself, and practically all of these before the advent of parenteral liver therapy. The remaining two-thirds died of diseases common to people at this age.

4. Parenteral liver therapy is the most satisfactory method because it assures absorption of the liver fraction needed. With this method available, transfusion is rarely necessary.

5. Adequate liver therapy will prevent the development or progress of spinal cord changes. However, central nervous system complications are an indication for more intensive treatment.

6. The presence of focal infection increases the requirement of the specific substance. At the same time, it is unwise to remove such infection until a complete remission is reached.

7. Supplementary measures of therapy, such as iron, dilute hydrochloric acid, or vitamin medication, physiotherapy and blood transfusion, have a definite place in certain cases and at the proper time.

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RECENT ADVANCES IN BLOOD TRANSFUSION*

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Many vital issues have been raised in recent years by the almost unbelievable expansion of the use of transfusion. That a great many more transfusions than are actually needed are being given today is undebatable. However, that the administration of blood in appropriate doses to properly selected cases can be of great assistance is also undeniable. Only in another decade or two will many of the relatively recent additions to our armamentarium find more nearly their proper place; but as to blood transfusion, at least, it may definitely be said that by the observance of a relatively few essential precautions it certainly has become an entirely simple and safe procedure, and is a real adjunct to treatment.

At Harper Hospital last year a total of 1,484 transfusions were performed, which almost doubled the number done in 1937, and there was not a single fatality attributable to the transfusion itself. This is quite a contrast to the record of a few years ago, when severe reactions averaged 10 to 20 per cent, and fatalities up to 1 or 2 per cent. By the use of a simplified procedure,¹ it is also noteworthy that of the 1,484 transfusions done at Harper, the majority of them were performed by internes and residents without any assistance from the attending staff whatsoever, which speaks eloquently for the relative simplicity of blood transfusion today.

The true indications for transfusion have not been greatly extended in recent years, but we are now more alert in giving blood and plenty of it at the earliest indication that blood is needed. It is also not new to state that blood may be profitably given to replace blood-loss due to any cause and with or without surgical shock, but it is only relatively recently that it has been given in such quantities as to restore the hemoglobin to 100 per cent in the short space of two or three days. The method of mass transfusion, in which 2,000 to 3,000 c.c. of blood is given by continuous drip over a period of 36 to 48 hours, has been used a good deal in England² but is not favored in this

country. Here we prefer giving 300 or 400 c.c. every few hours until the blood-loss is restored to a high level in these extreme cases. In patients who have lost blood from a bleeding peptic ulcer or other internal viscera, it has formerly been held that transfusion would tend to produce further hemorrhage. By the use of small frequently repeated transfusions given at a very slow rate, such patients are now receiving blood with both profit and safety.

In the field of the anemias, due to blood dyscrasia, the use of blood transfusion has in fact narrowed rather than extended. Until 1926 there were more transfusions given for pernicious anemia than were given for any other cause; but since the advent of liver therapy, this group makes up the smallest number of transfusions. In fact, except for the occasional case of pernicious anemia whose situation is so desperate that one cannot wait even a few days for the blood maturation which parental liver extract will initiate, a blood transfusion is not at all indicated.

As to such secondary anemias as chlorosis, the hypochromic anemia of the menopause or of pregnancy, or the anemias following chronic infection, it is relatively uncommon that the use of proper anti-anemic substances will not prove entirely adequate. In the acute hemolytic anemia which sometimes follows the use of sulphanilamide, blood transfusion seems to have a very immediate effect and should be used vigorously until the blood level is completely satisfac-

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tory. In aplastic anemia there is at first an immediate benefit, and it may be possible to render such patients quite comfortable for a few months by repeated transfusions. An occasional case is reported in which the bone marrow finally resumes its activity after a few months of transfusion³ but usually there comes a time when transfusion is no longer of any value. It is my belief that a similar situation exists in regard to the leukemias. Occasionally the physician is forced to give repeated transfusions in the chronic leukemias. And while there is undoubtedly a temporary pick-up in the early months of the disease, it is never in any sense curative; and in the latter months of the illness, transfusion gives little benefit.

In hemorrhagic diseases and patients with severe jaundice and bleeding, blood transfusion may not only be an effective temporary expedient but as a pre-operative aid may be life-saving as well. I have had several opportunities to compare the usefulness of the citrate or indirect blood transfusion method, as contrasted to the whole blood or direct method, in the treatment of bleeding cases of purpura hemorrhagica and aplastic anemia, and have found no essential difference. In other words, in these cases of bleeding, due to thrombocytopenia, fresh citrated blood is fully as effective as whole blood in controlling the hemorrhages.

In granulocytopenia, blood transfusions, it has been claimed, are of great value. I am sorry to say I have not seen unmistakable evidence that this is so. Theoretically, it may be considered sound, and, as an adjunct to treatment, is well justified. However, I cannot endorse relying on transfusions as a major part of the treatment. In such cases they should be used as purely a supportive measure.

There is, perhaps, no more controversial subject concerning blood transfusion than its use in acute infection. Only two or three years ago I had several experiences in which blood transfusion was being urged by reputable physicians in desperate cases of pneumonia only because the cases were desperate, and not because there was either anemia or severe leukopenia. Of course, now the view has shifted, so that more sulphanilamide or serum are the recourse in desperation. In other words, blood transfusion can be of unmistakable value in desperate cases of infection when there is either definite

anemia or decided leukopenia; but its use cannot be justified in every case of serious infection unless there are definite blood changes.

The use of immuno-transfusion is somewhat different, for in this case one is giving blood because of its high content of immune substances and not because of the blood elements themselves. Of course, immuno-transfusion has a decidedly limited field; but occasionally, as in the common childhood diseases where convalescent serum is not available, or in infections due to a known bacterial strain where a suitable immune donor happens to be at hand, it can offer spectacular help. I have had three such experiences. One was the case of a hemolytic streptococcus infection of the hand, and two were severe cases of brucellosis⁴ who had resisted all other forms of therapy. In the latter case, one was dramatic beyond belief.

Of recent years much attention has been given to the total serum protein values in the blood, and more especially to the serum albumin value which is a direct reflection of the osmotic pressure of the blood plasma. When the total serum protein falls below 5.5 gm. per 100 c.c. of blood, or the serum albumin below 2.5 gm. per 100 c.c. of blood, the critical level has been reached. Below this point the osmotic pressure of the blood plasma is so low that water passes from the blood vessels into the tissue spaces, and we have edema. In nephrotic edema of severe degree, it often becomes necessary to raise the serum protein values or the osmotic pressure before the edema can be relieved. If there is anemia especially, it becomes most logical to administer blood to such patients, after which the edema may entirely subside. Recently 6 per cent acacia solutions⁵ have been used to raise osmotic pressure in such cases, and in some instances it does seem to have both a relatively lasting effect and to be fully as harmless as is blood transfusion.

The contra-indications to blood transfusion have altered appreciably during the past few years. I am sure we can all recollect instances in which transfusion was withheld for psychologic reasons in anxious patients, or for fear of a transfusion reaction which might be too great a strain in an already precarious situation. As to the former, it may now be answered that, by

the newer indirect methods, transfusions are frequently given without the patient's knowledge. While the possibility of a blood transfusion reaction must still be considered in gravely ill patients, nevertheless by administering small amounts at a time, of a carefully checked blood, such a consideration is rarely a serious factor today. Where there is pulmonary edema, any intravenous injection may further engorge the right side of the heart and may even prove fatal; so in such patients blood transfusion must, if given, be administered at an extremely slow rate. Likewise in serious myocardial degeneration, the giving of blood must be carefully considered. I have seen two such cases develop acute pulmonary edema while intravenous glucose was being administered at too fast a rate, and one of these cases proved fatal. It has been said that blood transfusion should not be used in cases of nephritis. This statement needs considerable modification. Certainly in the early days of acute hemorrhagic nephritis, blood is of very real assistance. As stated above, in any kind of nephrotic edema, even that of chronic Bright's disease, blood may sometimes be given to raise the serum protein levels with value. However, always caution must be used in transfusing cases of nephritis, for if a severe reaction should occur, with further damage to the renal tubules, a grave condition may result. Occasionally the blood of a patient with a severe infection, or patients with blood dyscrasia, will agglutinate the blood of all donors tested. This is probably due to the development of isoagglutinins, which render all donor bloods incompatible. In animal experiments,⁶ incompatible bloods can be given safely to dogs when the urine has been previously alkalinized. After administering sodium bicarbonate to a case of acute Hodgkin's disease, whose blood agglutinated all donors to a slight degree, I gave two transfusions without a reaction. However, this is a decidedly risky procedure and I do not advise it. I know of a fatal case of agranulocytosis, who similarly agglutinated all donor blood, and when transfused from one of them had a very severe reaction. At autopsy there was a very considerable hematin deposit in the renal tubules in spite of the alkali, and in spite of the fact that the same donor had given blood to this patient three years before with no reaction at all.

Reactions following transfusion cannot always be avoided, although now much is known concerning their cause. It hardly needs mentioning that improperly treated apparatus can be a cause, for most hospitals have learned that lesson from giving intravenous glucose. The most common cause of blood transfusion reaction, therefore, arises from the fact that not always can minor incompatibilities between two bloods be detected. This error can be lessened if test sera of high agglutinating titer only are used. It is not enough to use as a test serum the serum from just any person of Type A (II) or Type B (III) for such sera vary greatly in potency, and one with a strong titer must be chosen. Likewise, to avoid reactions, the donor's blood must always be cross-agglutinated with the recipient's blood. In few hospitals today is it deemed safe to ever give blood without cross-agglutination tests, or to rely on the Type O (IV) universal donors, except in extreme emergencies. Occasionally isoagglutinins are present in blood and are not revealed by the routine testing, and thus lead to a reaction. If potent test sera are used and a careful cross-matching is done, these reactions, if they do occur, are not usually severe. However, methods are being sought to detect these isoagglutinins, but as yet no practical one has been found. Another cause of reaction is present when blood is taken from the donor only a short time after he has eaten. Not completely altered substances may be present in the blood, such as partially split fats or amino acids, and these substances may be a cause of reaction. Also, the recipient may be allergic to some substance which the donor has recently eaten, and in such an event the recipient may develop hives or some other manifestation of allergy. The best safeguard against reactions is, I believe, the giving of the first 50 c.c. of blood at an extremely slow rate so that at the first sign of trouble the transfusion may be discontinued. It has been well shown that the larger the amount of blood given, the greater will be the reaction;⁷ so that by administering small amounts at a time, serious damage can nearly always be prevented.

In some areas there is considerable controversy still going on concerning the use of citrated blood as against whole blood. About five years ago I gave up direct-blood

transfusions entirely, and it is my belief that citrated blood will accomplish absolutely everything that whole blood will do. The indirect method is, furthermore, much more fool-proof, is more economical, requires practically no assistance, and is much less disturbing to the patient. Last year I sent out a questionnaire to 54 leading hospitals of the United States, Canada, and Great Britain. Of this group 60 per cent are using the citrate method exclusively, and 88 per cent more than 75 per cent of the time. Of those who are using the citrate method entirely now, are such hospitals as the Billings in Chicago, Stanford University Hospital, the Mayo Clinic, the Lahey Clinic, the London Hospital and Guy's Hospital of London, England, and the Royal Victoria Hospital in Montreal. As time goes on, it seems to me the direct method of blood transfusion may completely disappear.

Much has been written during the past two years on the use of stored blood and the establishment of so-called blood banks.⁸ There is no doubt but that in certain institutions the storage of blood can serve a very useful purpose. Such a method has many obvious advantages and, when carefully managed, has proven entirely safe. Such blood can be stored up to several weeks although most institutions using the blood bank are now discarding the blood after ten to fourteen days in storage. By the use of stored blood, no transfusion is ever done using blood without a Kahn test. Numerous examples are known of the transfer of syphilis through transfusion,⁹ and I have

seen one case myself which was eventually fatal because of the lues. I was able in one day recently at Detroit to find three cases who had been transfused with blood on which no Kahn test had been done, and if for no other reason than this, the blood bank, I believe, justifies itself. Also, stored blood tends to give fewer reactions than fresh blood, undoubtedly due in part to the fact that certain products of digestion go on to complete cleavage even while the blood is stored in the ice box. However, there is one drawback to the use of stored blood more than one day old, and that is that it loses much of its ability to facilitate clotting in only two or three days, and hence is not altogether suitable for use in bleeding cases. Also, while fresh blood—properly taken and mixed in citrate solution—does not need to be filtered at all, stored blood must always be filtered if kept more than a few days as a certain amount of cellular debris is present. For convenience of manipulation, and availability for immediate use night or day, the principle of blood banking is an excellent one and will undoubtedly be extended in the future.

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Michigan State Medical Society

Roster 1939

Allegan County

Beckett, M. B.....Allegan
Brunson, Eugene T.....Ganges
Clough, William J.....Saugatuck
Dickinson, C. A.....Wayland
Dolce, James A.....Allegan
Dolfin, W. E.....Wayland
Flinn, C. C.....Allegan

Hamelink, M. H.....Hamilton
Hudnut, Orrin Dean.....Plainwell
Johnson, E. B.....Allegan
Johnson, H. H.....Martin
Mahan, James E.....Allegan
Medill, W. C.....Plainwell
Osmun, E. D.....Allegan
Quine, R. C.....Fennville

Rigterink, George H.....Hamilton
Shepard, Lyle.....Otsego
Stuch, Howard T.....Allegan
Stuck, Olin H.....Otsego
Vaughan, W. R.....Plainwell
Van Der Kolk, Bert.....Hopkins
Walker, Robert J.....Saugatuck

Alpena-Alcona-Presque Isle

Carpenter, Clarence A.....Onaway
Hoffman, Richard.....Harrisville
Kessler, Harold.....Alpena
Lister, George F.....Hillman
Miller, A. R.....Harrisville

Moffat, Gordon B.....Rogers City
Monroe, Neil C.....Rogers City
O'Donnell, F. J.....Alpena
Parmenter, E. S.....Alpena
Purdy, John W.....Lachine

Ramsey, J. A.....Alpena
Rutledge, S. H.....Rogers City
Secrist, Leo F.....Alpena
Wienczewski, Theophile.....Alpena

Barry County

Cobb, Thomas H.....Woodland
Finnie, R. G.....Hastings
Fisher, Gordon F.....Hastings
Gwinn, A. B.....Hastings
Harkness, Robt. B.....Hastings

Heitman, Kenneth A.....Delton
Heney, M. Alice.....Hastings
Keller, Guy C.....Hastings
Lathrop, Clarence P.....Hastings
Lofdahl, Stewart.....Nashville

Lund, Chester A. E.....Middleville
McIntyre, K. S.....Hastings
Morris Edgar T.....Nashville
Wedel, Herbert S.....Freeport

Bay-Arenac-Iosco-Gladwin

Alcorn, Kent.....Bay City
Allen, A. D.....Bay City
Appel, S.....Pinconning
Asline, J. N.....Essexville
Austin, Justis.....Tawas City
Baker, Chas. H.....Bay City
Ballard, Sylvester L.....Bay City
Ballard, W. R.....Bay City
Boulton, A. O.....Gladwin
Burton, Horace F.....East Tawas
Brown, G. M.....Bay City
Criswell, R. H.....Bay City
Dickinson, John W.....Oscoda
Drummond, Fred.....Kawkawlin
Dumond, V. H.....Bay City
Ely, Nina.....Bay City
Foster, L. Fernald.....Bay City
Freel, John A.....Bay City
Gamble, W. G.....Bay City
Gronemeyer, W. H.....Bay City
Groomes, Charles.....Bay City
Grosjean, J. C.....Bay City
Gunn, Robert.....Standish
Gustin, J. W.....Bay City

Hagleshaw, G. L.....Bay City
Hasty, Earl.....Whittemore
Healy, Gaillard H.....Bay City
Hess, C. L.....Bay City
Heuser, Harold H.....Bay City
Horowitz, S. Franklin.....Bay City
Huckins, E. S.....Bay City
Hughes, E. C.....Bay City
Husted, F. Pitkin.....Bay City
Jacoby, A. H.....Bay City
Jens, Otto.....Essexville
Jones, Jerry M.....Bay City
Kerr, William.....Bay City
Kessler, Mana.....Bay City
Kessler, S.....Bay City
Kowals, F. V.....Bay City
Leininger, J. W.....Gladwin
Lerner, David.....Au Gres
McEwan, J. H.....Bay City
Medvesky, M. J.....Bay City
Merritt, C. E.....Bay City
Miller, Edwin C.....Bay City
Mitton, O. W.....East Tawas
Moore, George W.....Bay City

Moore, Neal R.....Bay City
Mosier, D. J.....Bay City
Perkins, Roy C.....Bay City
Pearson, Stanley M.....Bay City
Reutter, C. W.....Bay City
Riley, R. B.....Bay City
Scraftord, Royston Earl.....Bay City
Shafer, H. C.....Bay City
Sherman, R. N.....Bay City
Slattery, M. R.....Bay City
Speckhard, A. O.....Bay City
Stinson, W. S.....Bay City
Stuart, Kenneth.....Bay City
Swantek, Chas. M.....Bay City
Tarter, Clyde S.....Bay City
Thiehoff, E. V.....Gladwin
Tupper, Virgil L.....Bay City
Urmston, P. R.....Bay City
Warren, E. C.....Bay City
Weed, John.....East Tawas
Wilcox, J. W.....Bay City
Wilson, Thomas G.....Bay City
Wittwer, E. A.....Bay City
Woodburne, H. L.....Bay City
Ziliak, A. L.....Bay City

Berrien County

Allen, J. U.....Benton Harbor
Allen, Robert C.....St. Joseph
Anderson, Bertha.....St. Joseph
Bartlett, W. M.....Benton Harbor
Bliesmer, A. F.....St. Joseph
Brown, F. W.....Watervliet
Cawthorne, H. J.....Benton Harbor
Colef, Irving.....Benton Harbor
Conybeare, R. C.....Benton Harbor
Corey, A. W.....New Troy
Crowell, Richard.....St. Joseph
Dunnington, R. N.....Benton Harbor
Eidson, Hazel.....Berrien Springs
Ellet, W. C.....Benton Harbor
Emery, Clayton.....St. Joseph
Fredrickson, H. C.....Buchanan
Friedman, Morris.....New Buffalo

Gillette, Clarence H.....Niles
Hanna, P. G.....St. Joseph
Harper, Ina.....Benton Harbor
Harrison, L. L.....Niles
Helkie, Wm. L.....Three Oaks
Henderson, Fred.....Niles
Henderson, Robert.....Niles
Hershey, Noel J.....Niles
Higbee, Frank O.....Three Oaks
Herring, Nathaniel A.....Niles
Ingleright, Leon R.....Niles
King, Frank, Jr.....Benton Harbor
Kling, H. C.....Niles
Kok, Harry.....Benton Harbor
McDermott, J. J.....St. Joseph
Merritt, Charles W.....St. Joseph

Miller, E. A.....Berrien Springs
Mitchell, Carl A.....Benton Harbor
Moore, T. Scott.....Niles
Ozeran, Chas. J.....Benton Harbor
Reagan, Robt. E.....Benton Harbor
Richmond, D. M.....St. Joseph
Robson, Verna.....Berrien Springs
Rosenberry, A. A.....Benton Harbor
Smith, W. A.....Berrien Springs
Sowers, B. F.....Benton Harbor
Strayer, J. C.....Buchanan
Taber, R. B.....Benton Harbor
Thorup, Don W.....Benton Harbor
Weil, Leonard.....Benton Harbor
Westervelt, H. O.....Benton Harbor
Yeomans, T. G.....St. Joseph

Branch County

Aldrich, Napier S.....Coldwater
Beck, Perry C.....Bronson
Bien, W. J.....Coldwater
Brunson, A. E.....Colon
Chipman, E. M.....Quincy
Culver, Bert W.....Coldwater
Far, S. E.....Quincy
Fraser, R. J.....Bronson

Gist, L. I.....Coldwater
Holbrook, A. G.....Coldwater
Leeder, F. S.....Coldwater
McLain, R. W.....Jackson
Meier, H. J.....Coldwater
Mooi, H. R.....Union City
Olmosted, Kenneth L.....Coldwater
Phillips, F. L.....Bronson

Schneider, H. A.....Coldwater
Schultz, Samuel.....Coldwater
Scovill, H. A.....Union City
Thomas, J. A.....Coldwater
Wade, R. L.....Coldwater
Walton, N. J.....Quincy
Weidner, H. R.....Coldwater

ROSTER MICHIGAN STATE MEDICAL SOCIETY

Calhoun County

Allen, Herbert R.....Battle Creek
Amos, Norman H.....Battle Creek
Baribeau, R. H.....Battle Creek
Barnhart, Samuel E.....Battle Creek
Becker, H. F.....Battle Creek
Beuker, Herman.....Marshall
Bonifer, Phillip P.....Battle Creek
Brainard, C. W.....Battle Creek
Byland, N. O.....Battle Creek
Campbell, Alice.....Albion
Campbell, R. J.....Battle Creek
Capron, Manley J.....Battle Creek
Church, Starr K.....Marshall
Chynoweth, W. R.....Battle Creek
Cooper, J. E.....Battle Creek
Curry, Robt. K.....Homer
Derickson, E. C.....Burlington
Dickson, A. R.....Battle Creek
Dodge, Warren M., Jr.....Battle Creek
Fahndrich, C. G.....Battle Creek
Finch, D. L.....Augusta
Fraser, R. H.....Battle Creek
Funk, L. D.....Athens
Gething, Joseph W.....Battle Creek
Giddings, A. M.....Battle Creek
Gilfillan, Margery J.....Battle Creek
Godfrey, Willoughby L.....Battle Creek
Gordon, J. K. M.....Battle Creek
Gorsline, Clarence S.....Battle Creek
Graubner, F. L.....Marshall
Hafford, Alpheus T.....Albion
Hafford, George C.....Albion
Hansen, E. L.....Battle Creek
Harris, Rowland H.....Battle Creek
Haughey, Wilfrid.....Battle Creek
*Haughey, Wm. H.....Battle Creek

*Deceased April 14, 1939.

Heald, C. W.....Battle Creek
Henderson, Louis M.....Albion
Henderson, Phillip.....Albion
Herser, Henry A.....Albion
Hills, C. R.....Battle Creek
Holes, Jesse J.....Battle Creek
Holton, B. G.....Battle Creek
Howard, W. L.....Battle Creek
Hoyt, Aura A.....Battle Creek
Humphrey, Archie E.....Marshall
Humphrey, Arthur A.....Battle Creek
Jespersion, Lydia.....Battle Creek
Jones, T. K.....Marshall
Keagle, Leland R.....Battle Creek
Keeler, K. B.....Albion
Kellogg, Carrie S.....Battle Creek
Kellogg, John H.....Battle Creek
Kingsley, Paul C.....Battle Creek
Kinde, M. R.....Battle Creek
Kolvoord, Theodore.....Battle Creek
LaFrance, Francis.....Battle Creek
Landon, Charles C.....Battle Creek
Lewis, W. B.....Battle Creek
Lowe, H. M.....Battle Creek
Lowe, Kenneth.....Battle Creek
Lowe, Stanley T.....Battle Creek
Lyon, William D.....Albion
MacGregor, Archibald E.....Battle Creek
Martin, Walter F.....Battle Creek
McNair, Lawrence.....Albion
Melges, F. J.....Battle Creek
Mercer, C. M.....Battle Creek
Morrison, Donald B.....Tekonsha
Moshier, Bertha.....Battle Creek
Mullenmeister, H. F.....Battle Creek
Mustard, Russell.....Battle Creek
Nelson, Albert W.....Battle Creek
Norton, Richard C.....Battle Creek
Olsen, Alfred B.....Battle Creek

Overholt, B. M.....Battle Creek
Patterson, Adonis.....Battle Creek
Pritchard, J. Stuart.....Battle Creek
Radabaugh, Clara V.....Battle Creek
Riley, Wm. H.....Battle Creek
Robbert, John.....Climax
Robins, Hugh.....Marshall
Rorick, Wilma Weeks.....Battle Creek
Rosenfeld, Jos. E.....Battle Creek
Roth, Paul.....Battle Creek
Royer, C. W.....Battle Creek
Royer, W. A.....Battle Creek
Selmon, Bertha L.....Battle Creek
Sharp, A. D.....Albion
Shipp, Leland P.....Battle Creek
Simpson, Robert S.....Battle Creek
Slagle, George W.....Battle Creek
Sleight, James D.....Battle Creek
Sleight, Raymond D.....Battle Creek
Smith, T. C.....Athens
Stadle, Wendell H.....Battle Creek
Stewart, Charles E.....Battle Creek
Stiefel, Richard.....Battle Creek
Tannenholz, Harold S.....Battle Creek
Taylor, Clifford B.....Albion
Thompson, Oliver E.....Battle Creek
Upson, W. O.....Battle Creek
Van Camp, Elijah.....Battle Creek
VanderVoort, W. V.....Battle Creek
Verity, Lloyd E.....Battle Creek
Volmer, Maud J.....Moline, Illinois
Walters, F. R.....Battle Creek
Walters, Royal W.....Battle Creek
Wencke, Carl G.....Battle Creek
Whyte, Bruce.....Battle Creek
Winslow, Rollin C.....Battle Creek
Winslow, Sherwood B.....Battle Creek
Zinn, Karl.....Battle Creek

Cass County

Adams, U. M.....Marcellus
Clary, R. I.....Dowagiac
Cunningham, E. M.....Cassopolis
Harmon, C. M.....Cassopolis

Hickman, John.....Dowagiac
Jones, John H.....Dowagiac
Kelsey, James H.....Cassopolis
Loupee, George.....Dowagiac
Loupee, S. L.....Dowagiac

Lyman, W. R.....Dowagiac
Myers, Charles M.....Dowagiac
Newsome, Otis.....Cassopolis
Pierce, Kenneth C.....Dowagiac
Zwergel, E. H.....Cassopolis

Chippewa-Mackinac Counties

Bandy, Festus C.....Sault Ste. Marie
Birch, William.....Sault Ste. Marie
Blain, James G.....Sault Ste. Marie
Conrad, George A.....Sault Ste. Marie
Cook, Carl S.....Mackinac Island
Cornell, Eliphalet A.....Sault Ste. Marie
Cowan, Donald.....Sault Ste. Marie
Darby, J. F.....St. Ignace

Gilfillan, E. O.....Sault Ste. Marie
Hakala, L. J.....Sault Ste. Marie
Husband, F. H.....Sault Ste. Marie
Littlejohn, David.....Sault Ste. Marie
McBryde, Lyman M.....Sault Ste. Marie
Mertough, W. F.....Sault Ste. Marie
Moloney, F. J.....Sault Ste. Marie
Montgomery, B. T.....Sault Ste. Marie

Reese, J. A.....DeTour
Rhind, E. S.....Rudyard
Scott, D. F.....Sault Ste. Marie
Vegors, Stanley H.....Sault Ste. Marie
Wallen, LeRoy J.....Sault Ste. Marie
Webster, E. H.....Sault Ste. Marie
Willison, C.....Sault Ste. Marie
Yale, I. V.....Sault Ste. Marie

Clinton County

Elliott, Bruce R.....Ovid
Foo, Chas. T.....St. Johns
Frace, Guy H.....St. Johns
Hart, Dean W.....St. Johns

Henthorn, A. C.....St. Johns
Ho, Thomas Y.....St. Johns
Luton, F. E.....St. Johns

MacPherson, D. H.....Fowler
McWilliams, W. B.....Maple Rapids
Russell, Sherwood R.....St. Johns
Sawyer, Walter W.....St. Johns

Delta-Schoolcraft Counties

Bachus, Arthur C.....Powers
Bartley, Geo. C.....Escanaba
Benson, G. W.....Escanaba
Boyce, D. H.....Escanaba
Brenner, Ervin J.....Manistique
Broberg, Gail.....Manistique
Carlton, A. J.....Escanaba
Chenoweth, Nancy R.....Escanaba
Defnet, Harry John.....Escanaba

Diamond, F. J.....Gladstone
Diamond, J. A.....Gladstone
Frenn, Nathan J.....Bark River
Fyvie, James.....Manistique
Groos, Harold Q.....Escanaba
Groos, Louis P.....Escanaba
Hult, Otto S.....Gladstone
Kitchen, A. S.....Escanaba
Lanting, R.....Escanaba

LeMire, Wm. A.....Escanaba
Long, Harry W.....Escanaba
Miller, Albert H.....Gladstone
Mitchell, James D.....Gladstone
Moll, G. W.....Escanaba
Shaw, Geo. A.....Manistique
Tucker, A. R.....Manistique
Walch, J. J.....Escanaba
Witters, Josef E.....Nahma

Dickinson-Iron Counties

Alexander, W. H.....Iron Mountain
Andersen, E. B.....Iron Mountain
Boyce, Geo. H.....Iron Mountain
Browning, James L.....Iron Mountain
Camper, T. E.....Stambaugh
Fiedling, Wm.....Norway

Fredrickson, Geron.....Iron Mountain
Haight, Harry H.....Crystal Falls
Hamlin, Lloyd E.....Norway
Hayes R. E.....Sagola
Huron, W. H.....Iron Mountain
Irvine, L. E.....Iron River

Kofmehl, Wm. J.....Stambaugh
Levine, D. A.....Iron River
Libby, Edward M.....Iron River
Menzies, Clifford.....Iron Mountain
Smith, Donald R.....Iron Mountain
Walker, Claude W.....Iron Mountain
White, Robt. E.....Stambaugh

ROSTER MICHIGAN STATE MEDICAL SOCIETY

Eaton County

Anderson, K. A.....Charlotte
Bradley, James B.....Eaton Rapids
Brown, B. Philip.....Charlotte
Burdick, Austin F.....Grand Ledge
Burleson, A. H.....Olivet
Engle, Paul.....Olivet
Gibson, T. E.....Lansing
Hargrave, Don V.....Eaton Rapids
Huber, Chas. D.....Charlotte

Imthun, Edgar F.....Grand Ledge
Lawther, John.....Charlotte
Lown, C. A.....Grand Ledge
McLaughlin, C. L. D.....Vermontville
Moyer, H. A.....Charlotte
Paine, E. Madison, Jr.....Grand Ledge
Paine, E. M.....Grand Ledge
Quick, Phil H.....Olivet
Rickerd, Vinton J.....Charlotte

Sackett, C. S.....Charlotte
Sassaman, F. W.....Charlotte
Sevener, C. J.....Charlotte
Sevener, Lester G.....Charlotte
Stanka, Andrew Geo.....Grand Ledge
Stimson, C. A.....Eaton Rapids
Stucky, George.....Charlotte
Van Ark, Bert.....Eaton Rapids
Wilensky, Thomas.....Eaton Rapids

Genesee County

Anthony, Geo. E.....Flint
Backus, G. R.....Flint
Bahlman, Gordon H.....Flint
Baird, James.....Flint
Bald, Frederick W.....Flint
Baske, Franklin W.....Flint
Bateman, L. G.....Flint
Benson, J. C.....Flint
Biggar, H. R.....Flint
Bishop, D. L.....Flint
Blakeley, A. C.....Flint
Bogart, Leon M.....Flint
Boles, Wm. P.....Flint
Bonathan, A. T.....Flint
Boughton, Thelma G.....Bluefield, West Virginia
Bradley, Robt.....Flint
Brain, R. Gordon.....Flint
Brasie, D. R.....Flint
Briggs, Guy D.....Flint
Burkett, L. V.....Flint
Burnell, B. E.....Flint
Burnell, Max.....Flint
Chambers, Myrton S.....Flint
Charters, John H.....Fenton
Childs, Lloyd H.....Flint
Clark, Clifford P.....Flint
Clift, M. William.....Flint
Collwell, C. W.....Flint
Connell, J. T.....Flint
Conover, G. V.....Flint
Conover, T. S.....Flint
Cook, Henry.....Flint
Covert, F. L.....Gaines
Credille, B. A.....Flint
Curry, George.....Flint
Curtin, J. H.....Flint
DelZingro, N.....Davison
Dimond, E. G.....Flint
Dodds, F. E.....Flint
Drewyer, Glen.....Flint
Edgerton, A. C.....Clio
Finkelstein, T.....Flint
Flynn, S. T.....Flint
Foley, S. L.....Flint
Fuller, H. T.....Mt. Morris
Gelenger, S. M.....Flint
Gibson, Edward D.....Flint
Gleason, N. Arthur.....Flint
Goering, George R.....Flint

Golden, H. Maxwell.....Flint
Goodfellow, B. T.....Flint
Gorne, S. S.....Flint
Graham, Hugh W.....Mt. Morris
Grover, H. F.....Flint
Guile, Earle.....Flint
Guile, G. S.....Flint
Gundry, G. L.....Grand Blanc
Gutow, I.....Flint
Hague, R. F.....Flint
Halligan, Raymond S.....Flint
Handy, John W.....Flint
Harper, A. W.....Flint
Harper, Homer.....Flint
Hawkins, James E.....Flint
Hays, George A.....Flint
Hiscock, H. H.....Flint
Houston, James.....Swartz Creek
Hubbard, Wm. B.....Flint
Johnson, Frank.....Flint
Jones, Lafon.....Flint
Kirk, A. Dale.....Flint
Kretchmar, A. H.....Flint
Kurtz, J. J.....Flint
Lambert, L. A.....Flint
Logan, G. W.....Flushing
MacDuff, R. B.....Flint
MacGregor, D. M.....Flint
MacGregor, R. W.....Flint
Macksood, Joseph.....Flint
Malfroid, B. W.....Flint
Marsh, H. L.....Flint
Marshall, Wm. H.....Flint
Mason, Elta.....Flint
Matthewson, Guy C.....Flint
McArthur, A.....Flint
McGarry, Burton G.....Fenton
McGarry, R. A.....Flint
McGregor, J. C.....Flint
McKenna, O. W.....Flint
Miller, Bryce.....Flint
Miner, Frederick B.....Flint
Moore, John W.....Flint
Moore, Kenneth B.....Flint
Morrish, Ray S.....Flint
Morrisey, V. H.....Flint
Mosier, Edw. C.....Otisville
Odle, Ira.....Flint
Olson, James A.....Flint

O'Neil, C. H.....Flint
Orr, J. Walter.....Flint
Phillips, R. L.....Flint
Pratz, O. C.....Flint
Preston, Otto.....Flint
Randall, H. E.....Flint
Reeder, Frank E.....Flint
Reid, Wells C.....Goodrich
Rice, E. D.....Flint
Richeson, V.....Flint
Roberts, Floyd A.....Flint
Rosenblum, Herman G.....Flint
Rundles, Walter Z.....Flint
Sandy, K. R.....Flint
Scavarda, Chas. J.....Flint
Scott, R. D.....Flint
Shantz, L. O.....Flint
Sheeran, Daniel H.....Flint
Shipman, Charles W.....Flint
Sleeman, Blythe R.....Linden
Smith, D. C.....Flint
Smith, E. C.....Flint
Sniderman, Benjamin.....Flint
Snyder, Charles E.....Swartz Creek
Spencer, J. A.....Flint
Steinman, F. H.....Flint
Stephenson, Robt. A.....Flint
Stevenson, W. W.....Flint
Streat, R. W.....Flint
Stroup, C. K.....Flint
Sutherland, J. K.....Flint
Sutton, George.....Flint
Sutton, M. R.....Flint
Thompson, Alvin.....Flint
Treat, D. L.....Flint
Wall, W. J.....Davison
Ware, Frank A.....Flint
Winchester, Walter H.....Flint
Woughter, Harold W.....Flint
Wheelock, A. S.....Flint
Wark, D. R.....Flint
White, Herbert.....Flint
Williams, W. S.....Flint
Willoughby, G. L.....Flint
Willoughby, L. L.....Flint
Wills, T. N.....Flint
Wright, D. R.....Flint
Wright, G. R.....Montrose
Wyman, J. S.....Flint

Gogebic County

Anderson, Chas. E.....Bessemer
Conley, W. C.....Ironwood
Crosby, Theodore S.....Ironwood
Eisele, D. C.....Ironwood
Gertz, M. A.....Ironwood
Gorrilla, A. C.....Ironwood
Lieberthal, M. J.....Ironwood

Lieberthal, Paul.....Ironwood
Maloney, F. G. H.....Ironwood
Nezworski, H. T.....Ramsay
O'Brien, A. J.....Ironwood
Pinkerton, H. A.....Ironwood
Pinkerton, W. J.....Bessemer
Rees, Thomas R.....Ironwood
Reid, John D.....Ironwood

Reynolds, F. L. S.....Ironwood
Sarvela, H. R.....Ironwood
Stevens, Charles E.....Bessemer
Tew, Wm. Ellwood.....Bessemer
Tressel, H. A.....Wakefield
Urquhart, C. C.....Ironwood
Wacke, W. H.....Ironwood

Grand Traverse-Leelanau-Benzie

Bolan, Ellis J.....Suttons Bay
Brownson, Jay J.....Kingsley
Brownson, Kneale.....Traverse City
Bushong, B. B.....Traverse City
Covey, E. L.....Honor
Ellis, Claude I.....Suttons Bay
Evans, E. E.....Oakland, Fla.
Gauntlett, J. W.....Traverse City
Goodrich, Dwight.....Traverse City
Grawn, F. A.....Traverse City
Hamilton, Earl E.....Traverse City
Holliday, George A.....Traverse City

Heune, Nevin.....Traverse City
Huston, Russell R.....Elk Rapids
Jerome, Jerome T.....Traverse City
Kitson, V. H.....Elk Rapids
Kyselka, H. B.....Traverse City
Lemen, Chas. E.....Traverse City
Lossman, R. T.....Traverse City
Murphy, Fred E.....Cedar
Nickels, M. M.....Traverse City
Osterlin, Mark.....Traverse City
Quinn, Henry M.....Copemish
Rennell, E. J.....Traverse City
Sheets, R. Philip.....Traverse City

Sladek, E. F.....Traverse City
Stone, Fordyce H.....Beulah
Swanton, L.....Traverse City
Swartz, F. G.....Traverse City
Thacker, Fred R.....Frankfort
Thirby, E. L.....Traverse City
Thompson, T. W.....Traverse City
Trautman, Fred D.....Frankfort
Way, Lewis R.....Traverse City
Weitz, Harry.....Traverse City
Zielke, I. H.....Traverse City
Zimmerman, J. G.....Traverse City

ROSTER MICHIGAN STATE MEDICAL SOCIETY

Gratiot-Isabella-Clare

Aldrich, Alfred L.....Ithaca
Barstow, D. K.....St. Louis
Barstow, Wm. E.....St. Louis
Becker, Myron G.....Edmore
Budge, M. J.....Ithaca
Burch, L. J.....Mt. Pleasant
Burt, C. E.....Ithaca
Carney, T. J.....Alma
Davis, L. L.....Mt. Pleasant
Dawson, Ralph E.....Blanchard
Dale, Edward C.....Shepherd

Drake, Wilkie M.....Breckenridge
DuBois, C. F.....Alma
Faber, Michael.....Ashley
Graham, Fred J.....Alma
Hall, B. C.....Pompeii
Hammerberg, Kuno.....Clare
Harrigan, W. L.....Mt. Pleasant
Hersee, Wm. E.....Mt. Pleasant
Hobbs, A. D.....St. Louis
Howell, Don M.....Alma
Johnson, P. R.....Mt. Pleasant
Lamb, E. T.....Alma

McArthur, Stewart C....Mt. Pleasant
Rondot, E. F.....Lake
Sanford, B. J.....Clare
Sarven, James D.....Middleton
Slattery, F. G.....Clare
Strange, Russell H.....Mt. Pleasant
Waggoner, R. L.....St. Louis
Wilcox, R. A.....Alma
Wilson, Earl C.....Harrison
Wolfe, K. P.....Alma
Wood, Cornelius B.....Clare

Hillsdale County

Alleger, W. E.....Pittsford
Bates, James E.....Camden
Bower, Chas. T.....Hillsdale
Bowers, M. H.....Hillsdale
Clobridge, C. E.....Allen
Davis, L. A.....Montgomery
Day, Luther W.....Jonesville
Ditmars, Wm. H.....Jonesville
Fisk, Fred B.....Jonesville

Green, B. F.....Hillsdale
Hamilton, A. J.....Hillsdale
Hanke, George R.....Ransom
Heald, J. E.....Hillsdale
Hodge, C. L.....Reading
Hughes, Henry F.....Hillsdale
Johnson, James H.....Hillsdale
Kinzel, R. W.....Litchfield
Kline, Fred D.....Litchfield

Mattson, H. F.....Hillsdale
Martindale, E. A.....Hillsdale
McFarland, O. G.....North Adams
McGarver, E. G.....Hillsdale
Miller, Harry C.....Hillsdale
Poppen, C. J.....Reading
Sterling, John S.....Jerome
Strom, A. W.....Hillsdale
Yeagley, J. L.....Waldron

Houghton-Baraga-Keweenaw

Abrams, James C.....Calumet
Aldrich, A. B.....Houghton
Aldrich, A. D.....Houghton
Aldrich, Leonard.....Hancock
Brewington, Geo. F.....Mohawk
Buckland, R. S.....Baraga
Burke, John J.....Hubbell
Coffin, Leslie E.....Painesdale
Cooper, C. A.....Hancock
Gregg, W. T. S.....Calumet
Janis, A. J.....Hancock
Kadin, Maurice.....Calumet

King, Wm. T.....Ahmeek
Kirton, Joseph R. W.....Calumet
LaBine, Alfred.....Houghton
Levin, Simon.....Houghton
Leo, L. S.....Houghton
*Maas, R. J.....Houghton
MacQueen, Donald K.....Laurium
Manthei, W. A.....Lake Linden
Marshall, Frank F.....L'Anse
McClure, Robt. J.....Calumet
Pleune, R. E.....Houghton
Quick, James B.....Laurium
Roberts, Melvin D.....Hancock

Roche, A. C.....Calumet
Rupprecht, C. H.....Calumet
Scott, Wm. P.....Houghton
Sloan, P. S.....Trimountain
Stern, Isadore.....Houghton
Stewart, G. C.....Hancock
Stewart, J. C. B.....Painesdale
Tinetti, Ernest F.....Laurium
Van Slyke, Wm. H.....Hancock
Waldie, George McLeod....Ishpeming
Ware, H. M.....Calumet
Wickliffe, T. P.....Calumet
Winkler, Henry J.....L'Anse

*Deceased February 2, 1939.

Huron-Sanilac Counties

Blanchard, E. W.....Deckerville
Caccamise, Jos. G.....Sebewaing
Cochran, Lewis E.....Peck
Gettel, Roy R.....Kinde
Gaston, Lloyd.....Sandusky
Gift, W. A.....Marlette
Hart, R. K.....Croswell
Henderson, J. Bates.....Pigeon

Herrington, Chas. I.....Bad Axe
Herrington, Willet J.....Bad Axe
Holdship, Wm. B.....Uby
Howell, A. J.....Bay Port
Kirker, F. O.....Sandusky
Koch, D.....Brown City
Learmont, H. H.....Croswell
*Lunn, J. O.....Harbor Beach
Monroe, Duncan J.....Elkton
Morden, Chas. B.....Bad Axe

Norgaard, Hal V.....Marlette
Oakes, C. W.....Harbor Beach
Ritsema, John.....Sebewaing
Robertson, Collin G.....Sandusky
Scheurer, C. A.....Pigeon
Thumme, Harrison F.....Sebewaing
Tweedie, G. Evans.....Sandusky
Tweedie, S. Martin.....Sandusky
Webster, John C.....Marlette

*Deceased April 10, 1939.

Ingham County

Albers, J. H.....East Lansing
Albert, Wilford D.....Leslie
Barrett, J. E.....Lansing
Barnum, S. V.....Lansing
Barrett, C. D.....Mason
Bartholomew, Henry S.....Lansing
Bauer, Theodore L.....Lansing
Behen, Wm. C.....Lansing
Bellinger, E. G.....Lansing
Bradford, C. W.....Lansing
Breakey, Robt. S.....Lansing
Brubaker, E. J.....Lansing
Brucker, Karl H.....Lansing
Bruegel, Oscar H.....East Lansing
Burhans, Robt. J.....Lansing
Cameron, W. J.....Lansing
Campbell, Archibald M.....Lansing
Carr, Earl I.....Lansing
Christian, L. G.....Lansing
Clark, William E.....Mason
Cook, R. J.....Lansing
Corsaut, J. C.....Mason
Cushman, F. J.....Lansing
Darling, L. H.....Lansing
Davenport, C. S.....Lansing
DeVries, C. F.....Lansing
Doyle, Chas. R.....Lansing
Doyle, C. P.....Lansing
Drolett, Fred J.....Lansing
Drolett, Lawrence.....Lansing
Dunn, F. C.....Lansing
Dunn, F. M.....Lansing
Ellis, Bertha W.....Lansing
Ellis, C. W.....Lansing
Finch, Russell L.....Lansing
Fisher, D. W.....Lansing

Fosget, Wilbur W.....Lansing
Foust, E. H.....Lansing
*Freeland, O. H.....Mason
French, Horace L.....Lansing
Galbraith, Dugald A.....Lansing
Gardner, C. B.....Lansing
Goldner, R. E.....Lansing
Gudakunst, Don W.....Lansing
Gunderson, G. O.....Lansing
Guy, Spencer D.....Lansing
Hall, R. E.....Ypsilanti
Harris, Dean W.....Lansing
Harrold, J. F.....Lansing
Hart, L. C.....Lansing
Haynes, H. B.....Lansing
Haze, Harry A.....Lansing
Heckert, Frank B.....Lansing
Heckert, J. K.....Lansing
Hendren, Owen.....Williamston
Henry, L. L.....Lansing
Hermes, Ed. J.....Lansing
Himmelberger, R. J.....Lansing
Hodges, Kenneth P.....Lansing
Holland, Chas. F.....East Lansing
Huggett, Clare C.....Lansing
Huntley, Fred M.....Lansing
Hurth, M. S.....Lansing
Johnson, K. H.....Lansing
Jones, Francis A.....Lansing
Kalmbach, R. E.....Lansing
Keim, C. D.....Lansing
Kent, Edith Hall.....Lansing
Kent, Herbert K.....Lansing
Krafts, L. C.....Leslie
Larrabee, E. E.....Williamston
Loree, Maurice C.....Lansing
Lucas, T. A.....Lansing
Ludlum, L. C.....Lansing
McConnell, E. G.....Lansing

McCorvie, C. Ray.....East Lansing
McCoy, Earl M.....Grand Ledge
McCrumb, R. R.....Lansing
McGillicuddy, O. B.....Lansing
McGillicuddy, R. J.....Lansing
McIntyre, J. E.....Lansing
McNamara, Wm. E.....Lansing
McPherson, E. G.....Stockbridge
Mercer, Walter E.....East Lansing
Meyer, Hugh R.....Lansing
Miller, H. A.....Lansing
†Miller, R. E.....Lansing
Mitchell, A. B.....Lansing
Morrow, R. J.....Lansing
Newitt, Arthur W.....Lansing
Niles, B. D.....Lansing
Ochsner, P. J.....Lansing
Osborn, Samuel.....Lansing
O'Sullivan, Gertrude.....Mason
Owen, A. E.....Lansing
Phillips, R. H.....Lansing
Pinkham, R. A.....Lansing
Ponton, J.....Mason
Prall, H. J.....Lansing
Randall, O. M.....Lansing
Richards, F. D.....DeWitt
Roberts, D. W.....Lansing
Robson, Edmund J.....Lansing
Roza, J. S.....Lansing
Roza, M. M.....Lansing
Russell, Claude V.....Lansing
Sander, John F.....Lansing
Sanford, Thomas M.....Lansing
Seger, Fred L.....Lansing
Shaw, Milton.....Lansing
Slemons, C. C.....Grand Rapids
Smith, Anthony C.....Mason
Smith, H. M.....Lansing
Smith, Lillian R.....Lansing

*Deceased March 25, 1939.

†Deceased March 2, 1939.

ROSTER MICHIGAN STATE MEDICAL SOCIETY

Snell, D. M.Lansing
 Snyder, LeMoyneLansing
 Spencer, PerryLansing
 Steiner, A. A.Lansing
 Stiles, FrankLansing
 Strauss, P. C.Lansing
 Tamblin, F. W.Lansing
 Toothaker, KennethLansing

Towne, Lawrence C.Lansing
 Troost, F. L.Holt
 Vander Slice, E. R.Lansing
 Vander Zalm, T. P.Lansing
 Wadley, R.Lansing
 Warford, J. T.Lansing
 Watson, C. M.Lansing
 Webb, Roy O.Okemos

Weinburgh, H. B.Lansing
 Welch, Wm. H.Lansing
 Wetzell, John O.Lansing
 Wight, W. G.Lansing
 Wiley, Harold W.Lansing
 Wellman, John M.Lansing
 Willson, Howard S.Lansing
 Wilson, Harry A.Lansing

Ionia-Montcalm Counties

Bird, Wm. L.Greenville
 Bowder, A. J.Greenville
 Bracey, L. E.Sheridan
 Bracey, FrankSaranac
 Bunce, E. P.Trufant
 Crunican, A. J.Hubbardston
 Dunkin, Lloyd S.Greenville
 Ferguson, F. H.Carson City
 Fleming, J. C.Pewamo
 Fox, Harold M.Portland
 Fuller, Rudolphus W.Crystal
 Geib, O. P.Carson City
 Hansen, M. M.Greenville
 Hargrave, F. A.Palo

Haskell, Robt. H.Northville
 Hay, John R.Saranac
 Hoffs, M. A.Lake Odessa
 Imus, H. L.Ionia
 Johns, Joseph J.Ionia
 Kelsey, L. E.Lakeview
 Kling, V. F.Ionia
 LaVictoire, Isaac N.Ionia
 Lilly, Isaac S.Stanton
 Lintner, Roy C.Ionia
 Marsh, F. M.Ionia
 Marston, L. L.Lakeview
 Maynard, Herbert M.Ionia

McCann, John J.Ionia
 Mintz, Morris J.Greenville
 Norris, Wm. W.Portland
 Peabody, C. H.Lake Odessa
 Pankhurst, C. T.Ionia
 Peacock, T. L.Lake Odessa
 Pinkham, J. F.Belding
 Robertson, P. C.Ionia
 Swift, E. R.Lakeview
 Van Duzen, V. L.Belding
 VanLoo, J. A.Belding
 Whitten, R. R.Ionia
 Willits, C. O.Saranac

Jackson County

Ahronheim, J. H.Jackson
 Alter, R. H.Jackson
 Baker, G. M.Parma
 Balconi, HenryBrooklyn
 Bartholic, F. W.Grass Lake
 Braunsdorf, R. L.Jackson
 Brown, H. A.Jackson
 Bullen, G. R.Jackson
 Chivers, R. W.Jackson
 Clarke, C. S.Jackson
 Cochrane, Wayne A.Jackson
 Cooley, Randall M.Jackson
 Corley, C.Jackson
 Corley, EnnisJackson
 Cox, FerdinandJackson
 Crowley, Edw. D.Jackson
 Culver, Guy D.Stockbridge
 DeMay, C. E.Jackson
 Dengler, C. R.Jackson
 Edmonds, J. M.Horton
 Enders, W. H.Jackson
 Finton, Walter L.Jackson
 Finton, W. R.Jackson
 Foust, W. L.Grass Lake
 Gibson, F. J.Jackson
 Glover, H. G.Jackson
 Greenbaum, HarryJackson
 Hackett, T. E.Jackson
 Hanft, Cyril F.Springport
 Hanna, R. J.Jackson
 Hardie, G. C.Jackson

Harris, Lester J.Jackson
 Hicks, Glenn C.Jackson
 Hoernschmeyer, J. L.Jackson
 Hungerford, P. R.Concord
 Huntley, W. B.Jackson
 Hurley, H. L.Jackson
 Keefer, A. H.Concord
 Kudner, Don F.Jackson
 Kugler, J. C.Jackson
 Lake, Wm. H.Jackson
 Lathrop, Wm. W.Jackson
 Leahy, E. O.Jackson
 Leonard, Clyde A.Jackson
 Lewis, E. F.Jackson
 Ludwick, J. E.Jackson
 McGarvey, W. E.Jackson
 McLaughlin, M. J.Jackson
 Meads, J. B.Jackson
 Miller, J. L.Jackson
 Munro, C. D.Jackson
 Munro, James E.Jackson
 Murphy, B. M.Jackson
 Newton, R. E.Jackson
 Nichols, R. H.Leslie
 O'Meara, James J.Jackson
 Otis, Grant L.Jackson
 Page, John W.Jackson
 Peterson, E. S.Jackson
 Phillips, David P.Jackson
 Porter, H. W.Jackson
 Pray, Frank F.Jackson

Pray, George R.Jackson
 Quillen, R. D.Chelsea
 Ransom, F. G.Jackson
 Riley, PhilipJackson
 Roberts, Arthur J.Jackson
 Schepeler, Courtland W.Brooklyn
 Scheurer, Peter A.Manchester
 Schmidt, T. E.Jackson
 Scott, JohnJackson
 Seybold, G. A.Jackson
 Shaeffer, A. M.Jackson
 Smith, Dean W.Jackson
 Smith, John C.Jackson
 Snow, W. R.Jackson
 Speck, John W.Jackson
 Stewart, L. L.Jackson
 Sugar, SamuelJackson
 Susskind, M. V.Jackson
 Thayer, E. A.Jackson
 Thalner, L. F.Jackson
 Townsend, J. W.Vandercook Lake
 Tuthill, F. S.Concord
 Van Schoick, FrankJackson
 Van Schoick, J. D.Hanover
 Wertenberger, M. D.Jackson
 Wholihan, John W.Michigan Center
 Wickham, W. A.Jackson
 Wilson, E. D.Jackson
 Wilson, E. G.Jackson
 Wilson, N. D.Jackson
 Winter, G. E.Jackson

Kalamazoo County

Aach, HugoKalamazoo
 Adams, R. U.Kalamazoo
 Alexander, C. A.Kalamazoo
 Ames, EdwardKalamazoo
 Andrews, F. T.Kalamazoo
 Andrews, ShermanKalamazoo
 Armstrong, Robt. J.Kalamazoo
 Banner, Lawrence R.Kalamazoo
 Barnebee, J. HoseaKalamazoo
 Barnebee, J. W.Kalamazoo
 Barrett, F. Elizabeth.Kalamazoo
 Behan, GeraldGalesburg
 Bennett, Chas. L.Kalamazoo
 Bennett, KeithKalamazoo
 Berry, J. F.Kalamazoo
 Bodmer, H. C.Kalamazoo
 Borgman, WallaceKalamazoo
 Boys, C. E.Kalamazoo
 Brooks, Ervin D.Kalamazoo
 Brown, I. W.Kalamazoo
 Burns, J. T.Kalamazoo
 Caldwell, George H.Kalamazoo
 Cobb, Horace R.Kalamazoo
 Cook, R. G.Kalamazoo
 Crawford, KennethKalamazoo
 Dean, RayThree Rivers
 DenBleyker, WalterKalamazoo
 DeWitt, L. H.Kalamazoo
 Dowd, B. J.Kalamazoo
 Doyle, F. M.Kalamazoo
 Ertell, Wm. F.Kalamazoo
 Fast, R. B.Kalamazoo
 Fopeano, John V.Kalamazoo
 Fortner, R. J.Three Rivers
 Fulkerson, C. B.Kalamazoo
 Fuller, R. T.Kalamazoo
 Fuller, PaulKalamazoo
 Gerstner, LouisKalamazoo
 Gilding, JosephVicksburg
 Gilding, Z. L.Vicksburg

Glenn, AudreyKalamazoo
 Grant, Fred. E.Kalamazoo
 Gregg, ShermanKalamazoo
 Harter, Randolph S.Schoolcraft
 Heersma, H. S.Kalamazoo
 Hildreth, R. C.Kalamazoo
 Hobbs, Edw. J.Galesburg
 Hodgman, Albert B.Kalamazoo
 Hoebeke, Wm. G.Kalamazoo
 Holder, Chas.Kalamazoo
 Howard, W. H.Galesburg
 Hubbell, R. J.Kalamazoo
 Huyser, Wm. C.Kalamazoo
 Ilgenfritz, F. M.Kalamazoo
 Irwin, Wm. D.Kalamazoo
 Jackson, John B.Kalamazoo
 Jennings, W. O.Kalamazoo
 Kenzie, W. N.Camp Custer
 Klerk, W. J.Kalamazoo
 Koestner, PaulKalamazoo
 Lambert, R. H.Kalamazoo
 Lang, W. W.Kalamazoo
 Lavender, HowardKalamazoo
 Light, Richard U.Kalamazoo
 Light, S. RudolphKalamazoo
 Littig, JohnKalamazoo
 MacGregor, J. R.Kalamazoo
 Malone, James G.Kalamazoo
 McCarthy, J. S.Kalamazoo
 McIntyre, Chas. H.Kalamazoo
 McNair, RushKalamazoo
 Morter, Roy A.Kalamazoo
 Nibbelink, BenjaminKalamazoo
 Osborne, Chas. E.Vicksburg
 Patmos, MartinKalamazoo
 Peelen, J. W.Kalamazoo
 Peelen, MatthewKalamazoo
 Perry, CliftonKalamazoo
 Pratt, F. A.Kalamazoo
 Prentice, Hazel R.Kalamazoo

Pullon, A. E.Kalamazoo
 Rickert, John A.Allegan
 Rigerink, G. H.Kalamazoo
 Rigerink, H. A.Kalamazoo
 Rockwell, A. H.Kalamazoo
 Rockwell, Donald C.Kalamazoo
 Sage, E. D.Kalamazoo
 Scholten, D. J.Kalamazoo
 Scholten, Wm.Kalamazoo
 Schrier, C. M.Kalamazoo
 Schrier, PaulKalamazoo
 Schrier, ThomasComstock
 Scott, J. MurrayKalamazoo
 Scott, Wm. A.Kalamazoo
 Sears, H. A.Kalamazoo
 Shackleton, Wm. E.Kalamazoo
 Shepard, Benj. A.Kalamazoo
 Shook, R. W.Kalamazoo
 Simpson, B. A.Kalamazoo
 Snyder, Roscoe F.Kalamazoo
 Sofen, Morris B.Kalamazoo
 Southworth, M. N.Schoolcraft
 Squires, David E.Kalamazoo
 Stewart, L. H.Kalamazoo
 Struthers, J. P. N.Kalamazoo
 Upjohn, E. Gifford.Kalamazoo
 Upjohn, L. N.Kalamazoo
 Van Ness, J. HowardAllegan
 Van Urk, ThomasKalamazoo
 Volderauer, John C.Kalamazoo
 Wagar, CarlSchoolcraft
 Walker, Burt D.Kalamazoo
 Weirich, Richard F.Marcellus
 Wenner, William F.Kalamazoo
 West, A. E.Kalamazoo
 Westcott, L. E.Kalamazoo
 Wilbur, E. P.Kalamazoo
 Youngs, A. S.Kalamazoo
 Youngs, C. A.Kalamazoo

ROSTER MICHIGAN STATE MEDICAL SOCIETY

Kent County

Adams, F. A.....Grand Rapids
Aitken, Geo. T.....Grand Rapids
Bachman, G. A.....Grand Rapids
Baert, Geo. H.....Grand Rapids
Baker, Abel J.....Grand Rapids
Ballard, M. S.....Grand Rapids
Bell, Chas. M.....Grand Rapids
Beeman, Carl B.....Grand Rapids
Beeman, C. E.....Grand Rapids
Beets, Clarence W.....Grand Rapids
Billings, Elton P.....Grand Rapids
Bishop, T. P.....Grand Rapids
Bloxxom, P. W.....Grand Rapids
Boet, F. A.....Grand Rapids
Bond, Geo. L.....Grand Rapids
Bosch, L. C.....Grand Rapids
Brayman, C. W.....Cedar Springs
Brook, J. D.....Grandville
Brotherhood, J. S.....Grand Rapids
Buesing, O. R.....Grand Rapids
Bull, Frank L.....Sparta
Burleson, John.....Grand Rapids
Burleson, Willard.....Grand Rapids
Burling, Wesley M.....Grand Rapids
Butler, Wm. J.....Grand Rapids
Cameron, Don Bruce.....Grand Rapids
Campbell, Alex M.....Grand Rapids
Cardwell, John F.....Winter Park, Fla.
Carpenter, Luther Clarendon.....Grand Rapids
Chadwick, W. L.....Grand Rapids
Chamberlin, L. H.....Grand Rapids
Chandler, Donald.....Grand Rapids
Cilley, E. O.....Grand Rapids
Clapp, Henry W.....Grand Rapids
Claytor, R. W.....Grand Rapids
Collisi, H. S.....Grand Rapids
Colvin, W. G.....Grand Rapids
Corbus, Burton R.....Grand Rapids
Crane, Chas. V.....Grand Rapids
Crane, Harold D.....Grand Rapids
Cuncannan, M. E.....Grand Rapids
Currier, F. P.....Grand Rapids
Dales, Ernest W.....Grand Rapids
Damstra, H. J.....Grand Rapids
Davis, D. B.....Grand Rapids
Dean, Alfred W.....Grand Rapids
DeBoer, Guy Wm.....Grand Rapids
Dell, E. E.....Sand Lake
DeMaagd, Gerald.....Rockford
DeMol, Richard J.....Grand Rapids
Denham, R. H.....Grand Rapids
DePree, Isla G.....Grand Rapids
DePree, Joseph.....Grand Rapids
DeVel, Leon.....Grand Rapids
DeVries, Daniel.....Grand Rapids
Dewar, M. M.....Grand Rapids
Dixon, Willis L.....Grand Rapids
Doran, Frank.....Grand Rapids
Droste, James C.....Grand Rapids
DuBois, Wm. J.....Grand Rapids
Duiker, Henry.....Grand Rapids
Eaton, Robt. M.....Grand Rapids
Failing, John F.....Grand Rapids
Farber, Chas. E.....Grand Rapids
Faust, L. W.....Grand Rapids
Ferguson, Lynn A.....Grand Rapids
Ferguson, Ward S.....Grand Rapids
Ferrand, L.....Rockford
Fitts, Ralph L.....Grand Rapids

Flynn, J. D.....Detroit
Foshee, J. C.....Grand Rapids
Frantz, Chas. H.....Grand Rapids
Fuller, E. H.....Grand Rapids
Gaikema, E. W.....Grand Rapids
Gainey, James J.....Grand Rapids
Geenen, C. J.....Grand Rapids
Gillett, O. H.....Grand Rapids
Gorrell, John E.....Grand Rapids
Grant, Lee O.....Grand Rapids
Graybiel, Geo. P.....Caledonia
Griffith, L. S.....Grand Rapids
Hagerman, D. B.....Grand Rapids
Hammond, T. W.....Grand Rapids
Hayes, L. W.....Howard City
Heetderks, Dewey R.....Grand Rapids
Henry, James, Jr.....Grand Rapids
Herrick, Ruth.....Grand Rapids
Hill, A. M.....Grand Rapids
Hilt, Lawrence M.....Grand Rapids
Hodgen, J. T.....East Grand Rapids
*Holcomb, John N.....Grand Rapids
Holcomb, J. W.....Grand Rapids
Holdsworth, M. J.....Grand Rapids
Holkeboer, H. D.....Grand Rapids
Hollander, Stephen.....Grand Rapids
Hoogerhyde, Jack.....Grand Rapids
Hufford, A. R.....Grand Rapids
Hunderman, Edward.....Grand Rapids
Hutchinson, Robt. J.....Grand Rapids
Hyland, W. A.....Grand Rapids
Ingersoll, C. F.....Grand Rapids
Irwin, Thomas C.....Grand Rapids
Jaracz, W. J.....Grand Rapids
Kelly, Robt. E.....Grand Rapids
Kemmer, Thomas R.....Grand Rapids
Kendall, Eugene L.....Grand Rapids
Klaus, C. D.....Grand Rapids
Kniskern, P. W.....Grand Rapids
Kooistra, Kenry P.....Grand Rapids
Kremer, John.....Grand Rapids
Kreulen, H. J.....Grand Rapids
Laird, Robert G.....Grand Rapids
Lamb, George F.....Grand Rapids
Lanning, M. E.....Grand Rapids
Lanting, D. B.....Grand Rapids
LeRoy, Simeon.....Grand Rapids
Liefers, Harry.....Grand Rapids
Lyman, Wm. D.....Grand Rapids
MacDonell, James A.....Lowell
MacPherson, Alex. G.....Grand Rapids
Marrin, M. M.....Grand Rapids
Marsh, J. P.....Grand Rapids
Maurits, Reuben.....Grand Rapids
McKenna, J. L.....Grand Rapids
McKinlay, L. M.....Grand Rapids
McRae, John H.....Grand Rapids
Meengs, Jacob E.....Grand Rapids
Mehney, Gayle H.....Grand Rapids
Miller, J. Duane.....Grand Rapids
Miller, John J.....Marne
Mitchell, W. B.....Grand Rapids
Moen, Cornetta G.....Grand Rapids
Moleski, Stanley L.....Grand Rapids
Moll, Arthur M.....Grand Rapids
Moore, Vernor M.....Grand Rapids
Mulder, J. D.....Grand Rapids
Murphy, M. J.....Grand Rapids
Nelson, A. R.....Grand Rapids
Nesbitt, E. N.....Grand Rapids
Noordewier, Albert.....Grand Rapids
Northouse, Peter B.....Grandville
Northrup, Wm.....Grand Rapids
Nyland, Albertus.....Grand Rapids

Oliver, W. W.....Grand Rapids
Patterson, P. Wilfred.....Grand Rapids
Pedden, J. R., Jr.....Grand Rapids
Phillips, J. W.....Grand Rapids
Pott, A. L.....Grand Rapids
Quigley, Ruth E.....Grand Rapids
Ralph, L. Paul.....Grand Rapids
Reed, Torrance.....Grand Rapids
†Rigterink, Hillis D.....Grand Rapids
Rigterink, J. W.....Grand Rapids
Riley, G. L.....Grand Rapids
Roberts, Mortimer E.....Grand Rapids
Robinson, Harold.....Grand Rapids
Rodgers, W. L.....Grand Rapids
Roth, Emil M.....Grand Rapids
Schermerhorn, L. J.....Grand Rapids
Schnoor, E. W.....Grand Rapids
Sevensma, Elisha S.....Grand Rapids
Sevey, L. E.....Grand Rapids
Shellman, Millard W.....Grand Rapids
Shepard, B. H.....Lowell
Smith, A. B.....Grand Rapids
Smith, Edwin M.....Grand Rapids
Smith, Ferris N.....Grand Rapids
Smith, R. Earle.....Grand Rapids
Smith, Richard R.....Grand Rapids
Snapp, Carl F.....Grand Rapids
Snyder, Clarence.....Grand Rapids
Southwick, George H.....Grand Rapids
Steffensen, W. H.....Grand Rapids
Stonehouse, G. G.....Grand Rapids
Stover, Virgil E.....Grand Rapids
Stuart, Gerhardus J.....Grand Rapids
Sugg, Cullen E.....Grand Rapids
Swenson, H. C.....Grand Rapids
Ten Have, J.....Grand Rapids
Tesseine, A. J.....Grand Rapids
Teusink, J. H.....Cedar Springs
Thompson, A. B.....Grand Rapids
Thompson, Athol B.....Grand Rapids
Thompson, P. L.....Grand Rapids
Tidey, Marcus B.....Grand Rapids
Tiffany, Jos. C.....Grand Rapids
Torgerson, Wm. R.....Grand Rapids
Van Belois, Harvard.....Grand Rapids
Van Bree, R. S.....Grand Rapids
Vanden Berg, Henry J.....Grand Rapids
VanDuine, H. J.....Byron Center
Van Solkema, Andrew.....Grand Rapids
Van Solkema, Arthur.....Grandville
Van Woerkom, Daniel.....Grand Rapids
Veldman, Harold E.....Grand Rapids
Veenboer, Wm. H.....Grand Rapids
Vis, Wm. R.....Grand Rapids
Votey, Frank A.....Grand Rapids
Vyn, J. D.....Grand Rapids
Warnshuis, Frederick C.....Boston, Massachusetts
Webb, Rowland.....Grand Rapids
Webster, G. W.....Grand Rapids
Wells, Merrill.....Grand Rapids
Wenger, A. V.....Grand Rapids
Wenger, John N.....Coopersville
Westrate, Paul.....Grand Rapids
Whalen, John M.....Grand Rapids
Whinery, Joseph B.....Grand Rapids
Willits, P. W.....Grand Rapids
Winter, Garrett E.....Grand Rapids
†Wolfe, H. C.....Grand Rapids
Woodburne, A. R.....Grand Rapids
Wright, John M.....Grand Rapids
Yegge, J. P.....Kent City

*Deceased April 25, 1939.

†Deceased April 20, 1939.

‡Deceased April 11, 1939.

Lapeer County

Berghorst, John.....Imlay City
Best, Herbert M.....Lapeer
Bishop, G. Clare.....Almont
Burley, David H.....Almont
Chapin, Clarence D.....Columbiaville
Dick, Kenneth W.....Imlay City

Dorland, Clark.....Lapeer
Hanna, Fred R.....Lapeer
Jackson, Carl C.....Imlay City
Johnson, H. R.....Imlay City
McBride, J. R.....Lapeer
Merz, Henry G.....Lapeer

O'Brien, Daniel J.....Lapeer
Rehn, A. T.....Lapeer
Thomas, J. Orville.....North Branch
Tinker, F. A.....Lapeer
Zemmer, H. B.....Lapeer

Lenawee County

Abraham, A. O.....Hudson
Beebe, I. J.....Morenci
Blanchard, L. E.....Hudson
Bland, J. P.....Adrian
Case, C. W.....Onsted
Chase, Artemus W.....Adrian
Claffin, G. M.....Deerfield
Clark, A. D.....Adrian
Claxton, W. T.....Britton
Colbath, W. E.....Adrian
Growt, Bowers H.....Addison
Hall, George C.....Adrian
Hamby, Scott B.....Onsted
Hammel, H. H.....Tecumseh

Hardy, P. B.....Tecumseh
Heffron, C. H.....Adrian
Heffron, Howard H.....Adrian
Helzerman, Ralph F.....Tecumseh
Hewes, A. B.....Adrian
Hornsby, W. B.....Clinton
Howland, F. A.....Adrian
Iler, Harris D.....Clinton
Jewett, Wm. E., Jr.....Adrian
Lamley, Arthur E.....Blissfield
Loveland, Horace H.....Tecumseh
McKenzie, W. S.....Adrian
McCue, F. J.....Hudson
Marsh, R. G. B.....Tecumseh

Miller, Perry Lynford.....Adrian
Morden, Esli T.....Adrian
Patmos, Bernard.....Adrian
Peters, W. L.....Morenci
Raabe, E. C.....Morenci
Rawson, A. P.....Addison
Rogers, J. D.....Adrian
Spalding, A. L.....Hudson
Stafford, Leo J.....Adrian
Tubbs, R. V.....Blissfield
Van Dusen, C. A.....Blissfield
Whitney, O.....Adrian
Wood, A. C.....Adrian

ROSTER MICHIGAN STATE MEDICAL SOCIETY

Livingston County

Backe, John C.....Detroit
Brigham, Jeannette.....Howell
Burt, K. L.....Howell
Cameron, Duncan A.....Brighton
Duffy, Ray M.....Pinckney
Finch, E. D.....Howell

*Deceased April 18, 1939.

Glenn, Bernard H.....Fowlerville
Hayner, R. A.....Howell
Hendren, J. J.....Fowlerville
Hill, Harold C.....Howell
Huntington, H. G.....Howell
Laboe, Edward W.....Howell
Leslie, G. L.....Howell

Lojacono, Salvatore.....Howell
McDowell, Guy M.....Howell
McGregor, Archie J.....Brighton
McIndoe, R. Bruce.....Howell
*Mellus, H. P.....Brighton
Sigler, Hollis L.....Howell
Stephens, D. C.....Howell

Luce County

Bohn, Frank P.....Newberry
Campbell, Earl H.....Newberry

*Deceased April 9, 1939.

Gibson, Robert E.....Newberry
*Hart, Clarence D.....Newberry
Perry, Henry E.....Newberry
Purmort, William R., Jr....Newberry

Spinks, Robert Earl.....Newberry
Surrell, Mathew A.....Newberry
Swanson, Geo. F.....Newberry
Toms, Chas. B.....Newberry

Macomb County

Allen, Leroy K.....Roseville
Bailey, R.....St. Clair Shores
Banting, O. F.....Richmond
Berry, Henry G.....Mt. Clemens
Bower, A. B.....Armada
Caster, E. Wilbur.....Mt. Clemens
Croman, Joseph M., Jr....Mt. Clemens
Croman, Joseph M., Sr....Mt. Clemens
Curllett, James E.....Roseville
Dudzinski, E. J.....New Baltimore
Engels, J. A.....Richmond
Fluemer, Oswald.....Mt. Clemens

Greenshields, Robert.....Romeo
Hawley, R. E.....St. Clair Shores
Heine, A.....Mt. Clemens
Kane, Wm. J.....Mt. Clemens
Lane, W. D.....Romeo
Lynch, Russell E.....Center Line
Moore, G. F.....Mt. Clemens
Mulligan, P. T.....Mt. Clemens
Reichman, Joseph J.....Mt. Clemens
Reitzel, R. H.....Mt. Clemens
Rivard, Charles L.....St. Clair Shores
Roth, G. F.....Armada
Rothman, A. M.....Roseville

Ruedisueli, Clarence A....East Detroit
Russell, T. P.....Center Line
Salot, R. F.....Mt. Clemens
Scher, Joseph N.....Mt. Clemens
Seaman, John.....New Haven
Sibrans, W. A.....East Detroit
Smith, Milton C.....Mt. Clemens
Sturm, Fred A.....St. Clair Shores
Thompson, A. A.....Mt. Clemens
Wellard, Henry C.....Algonac
Wiley, D. Bruce.....Utica
Wiley, Herbert H.....Utica
Wolfson, Victor H.....Mt. Clemens

Manistee County

Bryan, Kathryn M.....Manistee
Campbell, J. Gary.....Escanaba
Fairbanks, Stephen.....Augusta
Grant, C. L.....Manistee
Hansen, E. C.....Manistee

Jamieson, David A.....Arcadia
Konopa, John F.....Manistee
Lewis, Lee A.....Manistee
MacMullen, Harlen D.....Manistee
Miller, E. B.....Manistee
Norconk, Ward H.....Bear Lake

Oakes, Ellery A.....Manistee
Ogilvie, G. D.....Manistee
Ramsdell, Homer A.....Manistee
Switzer, Lars.....Manistee
Whitley, Alec.....Bear Lake

Marquette-Alger Counties

Barnes, Haldor.....Munising
Bennett, Arthur K.....Marquette
Berry, Robert F.....Marquette
Bertucci, J. P.....Ishpeming
Bottum, Charles N.....Marquette
Casler, W. L.....Marquette
Cooperstock, M.....Marquette
Corcoran, W. A.....Ishpeming
Corneliusson, Goldie B.....Lansing
Crane, J. D.....Ishpeming
Drury, Charles P.....Marquette
Elzinga, E. R.....Marquette

Erickson, Arvid W.....Ishpeming
Fennig, F. A.....Marquette
Gullickson, Miles.....Negaunee
Hanelin, H. A.....Marquette
Hartt, P. P.....Ishpeming
Hirwas, C. L.....Marquette
Hornbogen, D. P.....Marquette
Howe, L. W.....Marquette
Janes, R. Grant.....Marquette
Keskey, George I.....Marquette
Lambert, W. C.....Marquette
LeGolvan, C.....Marquette

McIntyre, D. R.....Negaunee
Mudge, W. A.....Negaunee
Niemi, O. I.....Marquette
Picotte, Wilfrid S.....Ishpeming
Robbins, Nelson J.....Negaunee
Schutz, W. J.....Munising
Sicotte, Isaiah.....Michigamme
Swinton, A. L.....Marquette
Talso, Jacob.....Ishpeming
Vandeventer, Vivian H.....Ishpeming
Van Riper, Paul.....Champion
Wickstrom, Geo.....Munising

Mason County

Blanchette, Victor J.....Custer
Farrier, Robert.....Ludington
Goulet, L. J.....Ludington

Hoffman, Howard.....Ludington
Hunt, Ivan L.....Scottville
Kirwan, Edward J.....Ludington
Martin, Wm. S.....Ludington

Ostrander, R. A.....Ludington
Paukstis, Chas.....Ludington
Spencer, C. M.....Scottville

Mecosta-Osceola-Lake

Bruggema, Jacob.....Evert
Campbell, James B.....Big Rapids
Chess, Leo F.....Reed City
Franklin, Benjamin L.....Remus
Grieve, Glenn.....Big Rapids

Igloe, Max C.....Big Rapids
Ivkovich, Paul.....Evert
Kilmer, Paul B.....Reed City
MacIntyre, Donald.....Big Rapids
McGrath, V. J.....Reed City
Peck, Louis K.....Barryton

Phillips, R. W.....Remus
Soper, Charles L.....Barryton
Treyner, Thomas P.....Big Rapids
White, J. A.....Morley
Yeo, Gordon H.....Big Rapids

Menominee County

Corkill, C. C.....Menominee
DeWane, F. J.....Menominee
Flanagan, Clarence B.....Menominee
Heidenreich, John R.....Daggett
Jones, Wm. S.....Menominee

Kaye, J. T.....Menominee
Kerwell, K. C.....Stephenson
Mason, Stephen C.....Menominee
Peterson, A. R.....Daggett

Sawbridge, Edward.....Stephenson
Schaen, Irvin.....Hermansville
Scully, John C.....Menominee
Sethney, Henry T.....Menominee
Towey, J. W.....Powers

Midland County

Ballmer, Robert S.....Midland
Beck, Frank K.....Coleman
Gay, Harold Howard.....Midland
Grewe, N. C.....Midland
High, C. V., Jr.....Midland

MacCallum, Charles.....Midland
Maynard, W. A.....Coleman
Meisel, Edward H.....Midland
Pike, Melvin H.....Midland

Place, Edwin H.....Midland
Rice, Robert E.....Midland
Sherk, J. H.....Midland
Sjolander, Gust.....Midland
Towsley, W. D.....Midland

ROSTER MICHIGAN STATE MEDICAL SOCIETY

Monroe County

Ames, Florence.....Monroe
Barker, Vincent L.....Monroe
Bond, W. W.....Monroe
Cooper, E. M.....Rockwood
Denman, D. C.....Monroe
Dusseau, S. V.....Erie
Ewing, R. T.....Monroe
Fieldhouse, B. J.....Ida
Gelhaus, Wm. J.....Monroe

Golinvaux, C. J.....Monroe
Heffernan, John F.....Carleton
Humphrey, J. A.....Monroe
Hunter, M. A.....Monroe
Jennings, W. M.....Monroe
Landon, Herbert W.....Monroe
Long, Edgar C.....Monroe
Long, Sara.....Monroe
McDonald, T. A.....Monroe
McGeoch, R. W.....Monroe

McMillin, J. H.....Monroe
Meck, H. L.....Dundee
Parmelee, O. E.....Lambertville
Reisig, A. H.....Monroe
Siffer, J. J.....Monroe
Smith, William A.....Petersburg
Stolpestad, C. T.....Monroe
Williams, Robert J.....Monroe
Williamson, George W.....Dundee

Muskegon County

Anderson, A. J.....Muskegon
August, R. V.....Muskegon
Barnard, Helen.....Muskegon
Bartlett, F. H.....Muskegon
Beers, Charles.....Holton
Bloom, C. J.....Muskegon
Boyd, D. R.....Muskegon
Bradshaw, Park S.....Muskegon
Cavanagh, R. G.....Muskegon
Chapin, William S.....Muskegon Heights
Closz, H. F.....Muskegon
Cohan, Sol G.....Muskegon
Colignon, C. M.....Muskegon
Collier, C. C.....Whitehall
D'Alcorn, Ernest.....Muskegon
Dasler, A. F.....Muskegon Heights
Derezinski, Clement F.....Muskegon
Diskin, Frank.....Muskegon
Douglas, Robert.....Muskegon
Drummond, S. J.....Casnovia
Durham, C. J.....Muskegon
Eckerman, C. T.....Muskegon
Fillingham, Enid.....Muskegon
Fleischman, C. B.....Muskegon
Fleishman, Norman.....Muskegon
Foss, Ed. O.....Muskegon

Garber, F. W., Jr.....Muskegon
Garland, J. O.....Muskegon
Gillard, James.....Muskegon
Goltz, Martha H.....Montague
Hagen, William A.....Muskegon
Hannum, F. W.....Muskegon
Harrington, A. F.....Muskegon
Harrington, R. J.....Muskegon
Hartwell, S. W.....Muskegon
Heneveld, John.....Muskegon
Holly, Leland E.....Muskegon
Holmes, Roy H.....Muskegon
Jackson, S. A.....Muskegon
Kane, Thomas J.....Muskegon
Keilin, Marie.....Muskegon
Kerr, H. J.....Muskegon
Kniskern, E. L.....Muskegon
LeFevre, George L.....Muskegon
LeFevre, Louis.....Muskegon
LeFevre, William M.....Muskegon
LaCore, O. M.....Muskegon Heights
Lange, E. W.....Muskegon
Lauretti, Emil.....Muskegon
Laurin, V. Samuel.....Muskegon
Loomis, John L.....Muskegon
Loughery, H. B.....Muskegon

Mandeville, C. B.....Muskegon
Medema, Paul E.....Muskegon
Meengs, M. B.....Muskegon
Miller, Philip L.....Muskegon
Morford, F. N.....Muskegon
Morse, Bertram W.....Whitehall
Mulligan, A. W.....Muskegon
Oden, Constantine L.....Muskegon
Olson, R. G.....Muskegon Heights
Pangler, Carl.....Muskegon Heights
Pettis, Emmett.....Muskegon
Powers, Lunette.....Muskegon
Price, Leonard.....Muskegon
Pyle, H. J.....Muskegon
Risk, R. A.....Muskegon
Risk, Robert D.....Muskegon
Scholle, W.....Muskegon
Spor, A. A.....Muskegon
Stone, Maxwell E.....Muskegon
Swartout, W. C.....Muskegon
Teifer, Charles A.....Muskegon
Thieme, S. W.....Ravenna
Thornton, E. S.....Muskegon
Wilke, C. A.....Montague
Wilson, P. S.....Muskegon

Newaygo County

Barnum, W. H.....Fremont
Deur, T. R.....Grant
Geerlings, Lambert.....Fremont
Geerlings, Willis.....Fremont

Gordon, B. F.....Newaygo
Johnstone, K. T.....Grant
Lettinga, D.....Grant
Moore, H. R.....Newaygo

Sears, Richard.....Fremont
Stevens, S.....Baldwin
Stryker, O. D.....Fremont
Tompsett, Arthur C.....Hesperia

Northern Michigan

Armstrong, Robert B.....Charlevoix
Blum, Benj. B.....Petoskey
Burns, Dean C.....Petoskey
Chapman, W. E.....Cheboygan
Conkle, Guy C.....Boyne City
Conway, Wm. S.....Petoskey
Dean, Carleton.....Charlevoix
Duffie, Don Hastings.....Central Lake
Engle, Ralph D.....Petoskey
Frank, Gilbert E.....Harbor Springs

Grillet, F. F.....Alanson
Harrington, H. M.....East Jordan
Larson, Ole.....Levering
Lashmet, Floyd H.....Petoskey
Litzenburger, A. F.....Boyne City
MacGregor, J. G.....Boyne City
Mast, W. H.....Petoskey
Mayne, Frederick C.....Cheboygan
McCarroll, James C.....Cheboygan
McMillan, Fraley.....Charlevoix

Miller, Samuel L.....Cheboygan
Palmer, Russell.....St. James
Parks, W. H.....Petoskey
Rodgers, John.....Bellaire
Reed, Wilbur F.....Cheboygan
Saltonstall, G. B.....Charlevoix
Stringham, J. R.....Cheboygan
Van Dellen, Terrian.....Ellsworth
Van Leuven, B. H.....Petoskey
Winter, Joseph A.....Mackinaw City

Oceana County

Day, Clinton.....Hart
Hayton, A. R.....Shelby
Heard, William.....Pentwater
Heysett, N. W.....Ft. Wayne, Indiana

Jensen, Viggo.....Shelby
Lemke, Walter M.....Shelby
Munger, L. P.....Hart

Nicholson, John H.....Hart
Reetz, F. A.....Shelby
Wood, Merle G.....Hart

Oakland County

Abbott, V. C.....Pontiac
Aschenbrenner, Z. R.....Farmington
Bachelder, Frank S.....Pontiac
Baker, Frederick A.....Pontiac
Baker, Robert H.....Pontiac
Barker, Howard B.....Pontiac
Bauer, Ernest W.....Hazel Park
Beck, O. O.....Birmingham
Benning, C. H.....Royal Oak
Borland, Alexander.....Pontiac
Boucher, R. E.....Royal Oak
Bradley, Everett L.....Pontiac
Burke, Chauncey G.....Pontiac
Burt, F. J.....Holly
Butler, Samuel A.....Pontiac
Cameron, D. A.....Royal Oak
Capano, A. O.....Pontiac
Christie, J. W.....Pontiac
Church, J. E.....Pontiac
Cobb, Leon F.....Pontiac
Cooper, Robert J.....Pontiac
Cottrell, Martha S.....Novi
Couchman, Boyd.....Royal Oak
Crissman, H. C.....Ferndale
Cudney, Ethan B.....Pontiac
Dahlgren, Carl.....Keego Harbor
Darling, C. G., Jr.....Pontiac
Ekelund, Clifford T.....Pontiac
Farnham, Lucius Augustine.....Pontiac

Faulconer, Albert.....Rochester
Faust, Earl.....Hazel Park
Ferris, Ralph G.....Birmingham
Fitzpatrick, Francis.....Pontiac
Fox, John W.....Pontiac
Furlong, Harold A.....Pontiac
Gariepy, Bernard F.....Royal Oak
Gatley, C. R.....Pontiac
Gatley, L. Warren.....Pontiac
Geib, Ormond D.....Rochester
Gerls, Frank B.....Pontiac
German, Frank D.....Pontiac
Gordon, J. H.....Birmingham
Grant, William A.....Milford
Green, Wm. M.....Pontiac
Hackett, Daniel J.....Pontiac
Halsted, Lee H.....Farmington
Hammer, Carl W.....Oxford
Hammonds, E. E.....Birmingham
Harris, Landy E.....Pontiac
Harvey, Campbell.....Pontiac
Hassberger, J. B.....Birmingham
Hathaway, Clarence L.....Lake Orion
Hathaway, William.....Rochester
Henry, Colonel R.....Ferndale
Huffman, M. R.....Milford
Howlett, E. V.....Pontiac
Hoyt, D. F.....Pontiac
Hume, T. W. K.....Auburn Heights

Hurst, Daniel D.....Pleasant Ridge
Jones, Morrell M.....Pontiac
Kemp, W. Lloyd.....Birmingham
Lambert, Alvin Gerald.....Ferndale
Lambie, John S.....Pontiac
Larson, B. T.....Pontiac
Lewis, Sol M.....Ferndale
Lockwood, C. E.....Holly
Mackenzie, O. R.....Walled Lake
Margrave, Edmund D.....Royal Oak
Markley, John Martin.....Pontiac
McConkie, J. P.....Birmingham
McCue, Francis J.....Pontiac
McNeill, H. H.....Pontiac
Meinke, Herman.....Hazel Park
Mercer, Frank A.....Pontiac
Miller, Raymond.....Clarkston
Mitchell, B. M.....Pontiac
Mooney, C. A.....Ferndale
Morrison, J. S.....Royal Oak
Neafe, Chas. A.....Pontiac
Norup, John.....Berkley
Ohlmacher, A. P.....Royal Oak
Olsen, Gertrude Emily.....Pontiac
Olsen, Richard E.....Pontiac
Osgood, S. W.....Clawson
Pauli, Theodore H.....Pontiac
Pool, Harry H.....Pontiac
Porritt, Ross J.....Pontiac

ROSTER MICHIGAN STATE MEDICAL SOCIETY

Prevette, Isaac C.....Pontiac
 Quamme, Roy K.....Pontiac
 Raynale, George P.....Birmingham
 Reid, F. T.....Clawson
 Riker, Aaron D.....Pontiac
 Roehm, Harold R.....Birmingham
 Rooks, Wendell H.....Pontiac
 Rowley, Laurie G.....Drayton Plains
 Russell, Vincent P.....Royal Oak
 St. John, Harold A.....Pontiac
 Seaborn, A. J.....Royal Oak
 Sheffield, L. C.....Pontiac

Sherman, G. A.....Pontiac
 Sibley, Harry A.....Pontiac
 Simpson, E. K.....Pontiac
 Smith, Carleton A.....Pontiac
 Smith, Donald S.....Pontiac
 Spears, M. L.....Pontiac
 Spencer, Lloyd H.....Royal Oak
 Spoehr, Eugene L.....Ferndale
 Spohn, Earl W.....Royal Oak
 Stanley, Wm. F.....Ferndale
 Starker, Clarence T.....Pontiac
 Steinberg, Norman.....Royal Oak
 Stolpman, A. K.....Birmingham

Sutherland, Clark J.....Clarkston
 Sutton, Palmer E.....Royal Oak
 Terry, Stuart.....Pontiac
 Tuck, Raymond G.....Pontiac
 Uloth, Milton J.....Ortonville
 Wagner, Ruth E.....Royal Oak
 Watson, Arthur M.....Lake Orion
 Watson, Thomas Y.....Birmingham
 Wiers, W. W.....Royal Oak
 Williams, H. W.....Pontiac
 Yoh, Harry B.....Pontiac
 Young, Arthur R.....Pontiac

O.M.C.O.R.O.

Beeby, Robert J.....West Branch
 Clippert, C. G.....Grayling
 Coulter, Keith Douglas.....Gladwin
 Crandell, C. H.....West Branch
 Drescher, Geo. A.....Lewiston
 Egle, Joseph L.....Gaylord
 Ford, Ruey O.....Gaylord
 Harris, Levi A.....Gaylord

Hendricks, Henning V.....Kalkaska
 Inman, J.....Kalkaska
 Jardine, Hugh.....West Branch
 Keyport, C. R.....Grayling
 LaPorte, L. A.....Gladwin
 Lee, F. W.....Fairview
 Martzowka, M. A.....Roscommon

McDowell, A. S.....West Branch
 McDowell, Douglas B.....West Branch
 McKillop, G. L.....Gaylord
 Peckham, Richard.....Gaylord
 Sargent, Leland E.....Kalkaska
 Stealy, Stanley.....Grayling
 Thompson, Sue H.....West Branch

Ontonagon County

Bender, Jesse L.....Mass
 Evans, Edwin J.....Ontonagon
 Hogue, H. B.....Ewen

McHugh, Frank W.....Ontonagon
 Rubinfield, S. H.....Ontonagon
 Strong, W. F.....Ontonagon

Toivonen, Pearl.....Ontonagon
 Whiteshield, C. F.....Trout Creek

Ottawa County

Beernink, E. H.....Grand Haven
 Bloemendaal, D. C.....Zeeland
 Bloemendaal, W. B.....Grand Haven
 Boone, Cornelius E.....Zeeland
 Bos, G. D.....Holland
 Clark, N. H.....Holland
 Coburn, Milan.....Coopersville
 DeVries, H. G.....Holland
 DeWitt, S. L.....Grand Haven
 Harms, H. P.....Holland
 House, M. E.....Holland

Huizinga, John G.....Holland
 Irvin, H. C.....Holland
 Kemme, Gerrit.....Zeeland
 Kools, Wm. Clarence.....Holland
 Leenhouts, Abraham.....Holland
 Long, C. E.....Grand Haven
 Mulder, C. D.....Spring Lake
 Nichols, Rudolph H.....Holland
 Presley, Wm. J.....Grand Haven
 Stickley, A. E.....Coopersville

Tappan, W. M.....Holland
 Ten Have, Ralph.....Grand Haven
 Timmerman, E. C.....Coopersville
 Ver Duin, J.....Grand Haven
 Van Der Berg, E.....Holland
 Vander Velde, O.....Holland
 Wells, Kenneth.....Spring Lake
 Westrate, William.....Holland
 Wiersma, Silas C.....Allendale
 Winters, John K.....Holland
 Winters, Wm. G.....Holland

Saginaw County

Ackerman, G. L.....Saginaw
 Anderson, W. K.....Saginaw
 Bagley, U. S.....Saginaw
 Bagshaw, David E.....Saginaw
 Bennett, R. B.....St. Charles
 Berberovich, T. F.....Saginaw
 Bishop, H. M.....Saginaw
 Brendler, Fred P.....Frankenmuth
 Brock, W. H.....Saginaw
 Busch, Frank J.....Saginaw
 Butler, M. G.....Saginaw
 Cady, F. J.....Saginaw
 Calomeni, Anthony D.....Saginaw
 Cameron, Allen K.....Saginaw
 Campbell, L. A.....Saginaw
 Clark, Wilbert B.....Saginaw
 Claytor, Archer A.....Saginaw
 Cortopassi, Andre.....Saginaw
 Curtis, James.....Saginaw
 Durman, Donald.....Saginaw
 Ely, C. W.....Saginaw
 English, Wm. F.....Saginaw
 Ernst, Arthur Randolph.....Saginaw
 Eymmer, Esther.....Saginaw
 Fleischer, Thos. E.....Birch Run
 Freeman, Frederick W.....Saginaw
 Gage, David P.....Saginaw
 Galsterer, E. C.....Saginaw
 Goman, Louis D.....Saginaw
 Grigg, Arthur.....Saginaw
 Grigg, Arthur P.....Saginaw
 Hand, Eugene.....Saginaw
 Harvie, L. C.....Saginaw

Helmkamp, Herbert O.....Saginaw
 Hester, E. G.....Saginaw
 Hill, Victor L.....Saginaw
 Hohn, F. J.....Saginaw
 Imerman, Harold M.....Saginaw
 Jaenichen, R.....Saginaw
 James, J. W.....Saginaw
 Jiroch, R. S.....Saginaw
 Jordan, Leo A.....Saginaw
 Kahn, Paul.....Frankenmuth
 Keller, S. S.....Saginaw
 Kemp, J. M.....Saginaw
 Kempton, R. M.....Saginaw
 Kirchgeorg, Clemens.....Frankenmuth
 Kleekamp, H. G.....Saginaw
 Knott, Harriet A.....Saginaw
 Leitch, Arthur E.....Saginaw
 Ling, Ernest M.....Hemlock
 Lohr, O. W.....Saginaw
 Longstreet, Martha L.....Saginaw
 Luger, F. E.....Saginaw
 Lurie, Robert.....Saginaw
 MacKinnon, Edwin D.....Saginaw
 MacMeekin, James Ware.....Saginaw
 Markey, Jos.....Saginaw
 Martzowka, Wm. P.....Saginaw
 Maurer, John A.....Saginaw
 McClinton, N. F.....Saginaw
 McGregor, R.....Saginaw
 McKinney, Alex R.....Saginaw
 McLandress, Joshua A.....Saginaw
 Meyer, Henry J.....Saginaw

Moon, A. R.....Saginaw
 Morris, Keith M.....Saginaw
 Mudd, Richard D.....Saginaw
 Murphy, Albert P.....Saginaw
 Novy, F. O.....Saginaw
 O'Reilly, William J.....Saginaw
 Ostrander, Frank W.....Freeland
 Phillips, Homer A.....Saginaw
 Pietz, Frederick.....Saginaw
 Pillsbury, Edward A.....Frankenmuth
 Poole, Frank A.....Saginaw
 Richter, Emil P. W.....Saginaw
 Richter, Harry J.....Saginaw
 Rosenberg, Robert.....Saginaw
 Ryan, R. S.....Saginaw
 Sample, Chester H.....Saginaw
 Sample, J. T.....Saginaw
 Schaiberger, Elmer.....Saginaw
 Sheldon, S. A.....Saginaw
 Slack, Walter K.....Saginaw
 Stander, A. C.....Saginaw
 Stolz, Harold F.....Saginaw
 Thomas, Dale.....Saginaw
 Thompson, A. B.....Saginaw
 Tiedke, G. E.....Saginaw
 Toshach, C. E.....Saginaw
 Wagar, Spencer.....Saginaw
 Wallace, Herbert C.....Saginaw
 Wheeler, Dorothy.....Saginaw
 Wilson, H. Roy.....Saginaw
 Wixted, John F.....Chesaning
 Wixted, Julia L.....Chesaning
 Yntema, S.....Saginaw

St. Clair County

Armsbury, Aaron B.....Marine City
 Atkinson, J. M.....Port Huron
 Attridge, J. A.....Port Huron
 Battley, J. C. Sinclair.....Port Huron
 Biggar, R. J.....Port Huron
 Borden, C. L.....Yale
 Boughner, W. H.....Algonac
 Bovee, M. E.....Port Huron
 Brush, Howard O.....Port Huron
 Burke, Ralph M.....Port Huron
 Burley, Jacob H.....Port Huron
 Callery, A. L.....Port Huron
 Campbell, R. H.....Saint Clair
 Carney, F. V.....Saint Clair
 Clyne, B. C.....Yale
 Cooper, T. H.....Port Huron
 DeGurse, T. E.....Marine City
 Derck, W. P.....Marysville

Engelman, A. A.....Saint Clair
 Fraser, Robert C.....Port Huron
 Heavenrich, Theodore F.....Port Huron
 Holcomb, R. J.....Marine City
 Kesi, Geo. Matthew.....Port Huron
 LeGalley, K. B.....Port Huron
 Licker, R. R.....Port Huron
 Ludwig, F. E.....Port Huron
 MacKenzie, Alexander J.....Port Huron
 MacNeil, Roy A.....Capac
 MacPherson, C. A.....Saint Clair
 Martin, C. S.....Port Huron
 McColl, D. J.....Port Huron
 McColl, Neil J.....Port Huron
 McCue, Christopher.....Goodells
 McCue, Chrystal C.....Goodells
 Meredith, E. W.....Port Huron
 Patterson, D. Webster.....Port Huron

Pollack, Donald A.....Yale
 Reynolds, Annie E.....Port Huron
 Ryerson, W. W.....Port Huron
 Schaefer, W. A.....Port Huron
 Sites, E. C.....Port Huron
 Smith, Reginald.....Port Huron
 Thomas, C. F.....Port Huron
 Treadgold, Douglas.....Port Huron
 Vroman, M. E.....Port Huron
 Walt, J. F.....Capac
 Ware, John R.....Port Huron
 Wass, Henry C.....St. Clair
 Waters, George.....Port Huron
 Wellman, Joseph E.....Port Huron
 Wight, William G.....Yale
 Witter, Gordon L.....Port Huron
 Zemmer, A. L.....Port Huron

ROSTER MICHIGAN STATE MEDICAL SOCIETY

St. Joseph County

Buell, Martin.....Sturgis
 Dodrill, F. E.....Three Rivers
 Fiegel, S. A.....Sturgis
 Hoekman, Aben.....Constantine
 Holm, Arvid.....Three Rivers
 Kane, David M.....Sturgis
 Miller, C. G.....Sturgis

O'Dell, J. H.....Three Rivers
 Parrish, Marion F.....Sturgis
 Pennington, H. C.....White Pigeon
 Pierce, H. W.....Colon
 Porter, C. G.....Centerville
 Raisch, Fred J.....White Pigeon
 Rice, John W.....Sturgis
 Shaw, G. D.....Mendon

Sheldon, J. P.....Sturgis
 Slote, L. K.....Constantine
 Springer, R. A.....Centerville
 Sweetland, G. J.....Constantine
 Weir, Dale C.....Three Rivers
 Wilkerson, Nina C.....Sturgis
 Zimont, R. D.....Constantine

Shiawassee County

Alexander, Reuben G.....Laingsburg
 Arnold, Alfred L., Jr.....Owosso
 Arnold, Alfred L., Sr.....Owosso
 Bates, L. F.....Durand
 Brandel, J. M.....Owosso
 Brown, Richard J.....Owosso
 Buzzard, Walter Davenport..Chesaning
 Carney, Edward J.....Durand
 Cramer, George L. G.....Owosso
 Crane, C. A.....Corunna
 Fillingier, W. B.....Ovid
 Greene, I. W.....Owosso

Haviland, James J.....Owosso
 Hume, Arthur M.....Owosso
 Hume, Harold A.....Owosso
 Janci, Julius.....Owosso
 Linden, V. E.....Durand
 McElmurry, N. K.....Perry
 McKnight, E. R.....Owosso
 Parker, W. T.....Owosso
 Pochert, R. C.....Owosso
 Richards, C. J.....Durand
 Sackrider, Geo. P.....Owosso

Shepherd, W. F.....Owosso
 Slagh, E. M.....Elsie
 Soule, Glenn T.....Henderson
 Stewart, George W.....Owosso
 Taylor, W. M.....Ovid
 Wade, G. B.....Laingsburg
 Ward, Walter E.....Owosso
 Watts, Fred A.....Owosso
 Weinkauf, W. F.....Corunna
 Wilcox, Anna L.....Owosso
 Wilcox, C. M.....Owosso

Tuscola County

Barbour, Harry A.....Mayville
 Bates, George.....Kingsburg
 Cook, Raymond.....Akrion
 Dickerson, Willert W.....Wahjamega
 Dixon, Robert L.....Wahjamega
 Donahue, Theron.....Cass City
 Flett, Richard O.....Millington
 Fox, Denton B.....Gagetown
 Gugino, Frank James.....Reese
 Handy, J. E.....Caro

Hoffman, T. E.....Vassar
 Howlett, R. R.....Caro
 Johnson, O. G.....Mayville
 Kaven, G. H.....Unionville
 MacRae, L. D.....Gagetown
 Maurer, J. G.....Reese
 Merrill, Elmer H.....Caro
 Morris, Frank L.....Cass City
 Petrie, William.....Caro
 Ross, Alexander T.....Wahjamega

Rundell, Annie Stevens.....Vassar
 Ruskin, D. B.....Fairgrove
 Savage, Lloyd L.....Caro
 Spohn, U. G.....Fairgrove
 Starmann, Bernard.....Cass City
 Swanson, E. C.....Vassar
 Vail, Harry F.....Unionville
 Vatz, Jack A.....Millington
 Von Renner, Otto.....Vassar

Van Buren County

Bope, Wm. P.....Decatur
 Boothby, F. M.....Lawrence
 Diephus, Bert.....South Haven
 Gano, Avison.....Bangor
 Giffen, John R.....Bangor
 Greenman, Newton H.....Decatur
 Hall, E. J.....Hartford
 Hoyt, W. F.....Paw Paw
 Itzen, J. F.....South Haven

Kingman, J. G.....Decatur
 Lowe, Edwin G.....Bangor
 Maxwell, J. C.....Paw Paw
 McNabb, A. A.....Lawrence
 Murphy, Norman D.....Bangor
 Palmer, Clayton H.....Hartford
 Penoyar, C. L.....South Haven
 Riley, G. M.....Gobles

Sayre, Philip.....South Haven
 Spalding, R. W.....Gobles
 Steele, Arthur H.....Paw Paw
 Ten Houten, Chas.....Paw Paw
 Terwilliger, Edwin.....South Haven
 Wilkinson, Chester A.....Kendall
 Williams, F. N.....Hartford
 Young, Wm. R.....Lawton

Washtenaw County

Adams, James F.....Ann Arbor
 Agate, George H.....Ann Arbor
 Alexander, John.....Ann Arbor
 Arnold, Harry L.....Ann Arbor
 Austin, F. C.....Ann Arbor
 Badgley, C. E.....Ann Arbor
 Balyeat, Gordon W.....Ann Arbor
 Barker, Paul.....Ann Arbor
 Barnwell, John B.....Ann Arbor
 Barr, A. S.....Ann Arbor
 Barss, Harold D.....Ypsilanti
 Bartlett, R. M.....Ann Arbor
 Bassow, Paul.....Ann Arbor
 Beebe, Hugh M.....Ann Arbor
 Bell, Margaret.....Ann Arbor
 Belote, G. H.....Ann Arbor
 Belser, Walter.....Ann Arbor
 Bethell, Frank Hartsuff.....Ann Arbor
 Bigg, Edward.....Ann Arbor
 Boyd, David A.....Ann Arbor
 Brace, William M.....Ann Arbor
 Breakey, James R.....Ypsilanti
 Britton, H. B.....Ypsilanti
 Brown, Philip.....Ypsilanti
 Brown, Willis E.....Ann Arbor
 Brownell, Durwin.....Ann Arbor
 Bruce, James D.....Ann Arbor
 Buscaglia, C. J.....Ypsilanti
 Camp, Carl Dudley.....Ann Arbor
 Clements, Glenn T.....Ann Arbor
 Coller, Frederick A.....Ann Arbor
 Conn, Jerome W.....Ann Arbor
 Cowie, D. M.....Ann Arbor
 Cummings, H. H.....Ann Arbor
 Curtis, Arthur C.....Ann Arbor
 Davis, Fenimore E.....Ann Arbor
 DeJong, Russell.....Ann Arbor
 DeTar, John S.....Milan
 Donaldson, S. W.....Ann Arbor
 Dowman, Chas. E.....Ann Arbor
 Dunstone, H. C.....Ypsilanti
 Duffee, M. L.....Ann Arbor
 Emerson, H. W.....Ann Arbor

Failing, Joseph H.....Ann Arbor
 Field, Henry, Jr.....Ann Arbor
 Folsome, Clair Edwin.....Ann Arbor
 Forsythe, Warren E.....Ann Arbor
 Fralick, F. Bruce.....Ann Arbor
 Freyberg, Richard H.....Ann Arbor
 Frye, Carl H.....Ann Arbor
 Furstenberg, Albert C.....Ann Arbor
 Ganzhorn, Edwin C.....Ann Arbor
 Gardiner, Sprague.....Ann Arbor
 Gates, John L.....Ann Arbor
 Gates, Neil A.....Ann Arbor
 German, J. W.....Ypsilanti
 Goldhamer, S. Milton.....Ann Arbor
 Gordon, Vida H.....Ann Arbor
 Gulde, Andros.....Chelsea
 Haight, Cameron.....Ann Arbor
 Hammond, George.....Ann Arbor
 Hammond, W. W., Jr.....Plymouth
 Hannum, M. R.....Milan
 Harris, Bradley M.....Ypsilanti
 Harris, H. W.....Ann Arbor
 Healey, Clarie E.....Ann Arbor
 Hessler, Harvey W.....Ann Arbor
 Haynes, Harley A.....Ann Arbor
 Himler, Leonard E.....Ann Arbor
 Hodges, Frederick J.....Ann Arbor
 Howard, S. C.....Ann Arbor
 Isaacs, Raphael.....Ann Arbor
 Jackson, Howard C.....Ann Arbor
 Jimenez, Buenaventura.....Ann Arbor
 Johnson, Lester J.....Ann Arbor
 Johnson, Vincent C.....Ann Arbor
 Johnston, Franklin D.....Ann Arbor
 Jordan, Paul H.....Ann Arbor
 Kahn, Edgar A.....Ann Arbor
 Keene, Clifford H.....Ann Arbor
 Kemper, J. W.....Ann Arbor
 Kleinschmidt, Earl D.....Ann Arbor
 Kleinschmidt, Gladys.....Ann Arbor
 Klingman, Theophile.....Ann Arbor
 Knoll, Leo.....Ann Arbor
 Kretzschmar, Norman R.....Ann Arbor

La Fever, Sidney L.....Ann Arbor
 Langford, Theron.....Ann Arbor
 Lathrop, Frank D.....Ann Arbor
 Law, John L.....Ann Arbor
 Lichty, Dorman E.....Ann Arbor
 Lilly, Coral Adelbert.....Ann Arbor
 List, Carl F.....Ann Arbor
 Lounsbury, James B.....Ann Arbor
 MacKaye, Lavina G.....Ann Arbor
 Mackenzie, Aileen McQuinn..Ypsilanti
 Maddock, Walter G.....Ann Arbor
 Malcolm, Karl D.....Ann Arbor
 Marshall, Mark.....Ann Arbor
 Martin, Donald.....Ypsilanti
 Maxwell, James H.....Ann Arbor
 McEachern, Thomas H.....Ann Arbor
 Mellencamp, Franklin J.....Ann Arbor
 Metzger, Ida.....Ypsilanti
 Miller, Harold.....Saline
 Miller, Norman F.....Ann Arbor
 Muehlig, Geo. F.....Ann Arbor
 Myers, Dean W.....Ann Arbor
 Nesbit, Reed M.....Ann Arbor
 Newburgh, L. H.....Ann Arbor
 Oliphant, L. W.....Ann Arbor
 Patterson, Ralph M.....Ann Arbor
 Peck, Willis S.....Ann Arbor
 Peet, Max.....Ann Arbor
 Peterson, Reuben.....
 Duxbury, Massachusetts
 Pillsbury, Chas. B.....Ypsilanti
 Pollard, H. M.....Ann Arbor
 Prout, Gordon J.....Saline
 Raphael, Theophile.....Ann Arbor
 Ratliff, Rigdon K.....Ann Arbor
 Ransom, Henry.....Ann Arbor
 Riecker, H. H.....Ann Arbor
 Rife, Charles S.....Ann Arbor
 Riggs, H. W.....Ann Arbor
 Ross, Howard.....Ann Arbor
 Rourke, Anthony J. J.....Ann Arbor
 Sacks, Wilma.....Ann Arbor
 Schnute, Louise F.....Ann Arbor

ROSTER MICHIGAN STATE MEDICAL SOCIETY

Schumacker, W. E.....Ann Arbor
 Sheldon, John M.....Ann Arbor
 Sink, Emory W.....Ann Arbor
 Smalley, Marianna.....Ann Arbor
 Snow, Glenadine.....Ypsilanti
 Snow, James S.....Ann Arbor
 Sodeman, William A.....Ann Arbor
 Solis, Jeanne C.....Ann Arbor
 Steiner, L. G.....Ann Arbor
 Stryker, Homer.....Ann Arbor
 Sturgis, Cyrus C.....Ann Arbor

Sundwall, John.....Ann Arbor
 Teed, Reed Wallace.....Ann Arbor
 Thieme, E. Thurston.....Ann Arbor
 Towsley, Harry A.....Ann Arbor
 Vander Sluis, David.....Ann Arbor
 Twiss, Arthur R.....Ann Arbor
 Waggoner, R. W.....Ann Arbor
 Wallace, J. B.....Saline
 Wanstrom, Ruth.....Ann Arbor
 Washburne, Charles L.....Ann Arbor
 Weinman, Edward B.....Ann Arbor

Weller, Carl V.....Ann Arbor
 Wessinger, J. A.....Ann Arbor
 Wile, Udo J.....Ann Arbor
 Williamson, F. B.....Ypsilanti
 Wilson, Frank N.....Ann Arbor
 Wisdom, Inez.....Ann Arbor
 Woods, J. J.....Ypsilanti
 Worth, M. H.....Ypsilanti
 Wright, Walter J.....Ypsilanti
 Wylie, Wm. C.....Dexter
 Yoder, O. R.....Ypsilanti

Wayne County

Adams, James Robert.....Dearborn
 Abrams, Harry M.....Detroit
 Adelson, Sidney L.....Detroit
 Adler, Leopold.....Detroit
 Adler, Sidney.....Detroit
 Agins, Jack.....Detroit
 Agnelly, Edward J.....Detroit
 Agnew, George H.....Detroit
 Albrecht, Herman F.....Detroit
 Aldrich, E. Gordon.....Detroit
 Alford, E. S.....Belleville
 Allen, Norman M.....Detroit
 Allen, Raymond B.....Detroit
 Alles, Russell W.....Detroit
 Allison, Frank B.....Detroit
 Allison, Herbert C.....Detroit
 Altemeier, Wm. A.....Detroit
 Altman, Raphael.....Detroit
 Altshuler, Ira M.....Detroit
 Altshuler, Samuel S.....Detroit
 Amberg, Emil.....Detroit
 Ames, C. C.....Detroit
 Amolsch, Arthur L.....Detroit
 Amos, Thomas G.....Detroit
 Anderson, Bruce.....Detroit
 Anderson, Walter L.....Detroit
 Andries, Joseph H.....Detroit
 Andries, Raymond C.....Detroit
 Ankle, J. W.....Detroit
 Anslow, Robert E.....Detroit
 Appel, Phillip R.....Detroit
 Appelman, H. B.....Detroit
 Arehart, Burke W.....Detroit
 Armstrong, Arthur G.....Detroit
 Armstrong, Oscar S.....New Orleans, La.
 Arnold, Effie.....Detroit
 Aronstam, Noah E.....Detroit
 Ascher, Meyer S.....Detroit
 Ashe, Stilson R.....Detroit
 Ashley, L. Byron.....Detroit
 Ashton, F. B.....Highland Park
 Asselin, J. L.....Detroit
 Atchison, Russell M.....Northville
 August, Harry E.....Detroit
 Axelson, A. U.....Detroit
 Babcock, Kenneth B.....Detroit
 Babcock, Myra E.....Detroit
 Babcock, W. L.....Detroit
 Babcock, W. W.....Detroit
 Bach, Walter F.....Detroit
 Bacon, Vinton A.....Detroit
 Baer, Ramond B.....Detroit
 Bagley, Harry E.....Dearborn
 Bailey, Don A.....Detroit
 Bailey, Louis J.....Detroit
 Baker, Clarence.....Detroit
 Balaga, F. T.....Detroit
 Balcerski, Matthew A.....Detroit
 Ballard, Charles S.....Detroit
 Balser, Charles W.....Detroit
 Baltz, James I.....Detroit
 Barker, F. Marion.....Grosse Pointe
 Barnett, Saul E.....Detroit
 Barone, Charles J.....Detroit
 Barrett, Wyman D.....Detroit
 Bartemeier, Leo H.....Detroit
 Barton, J. R.....Detroit
 Bates, Gaylord S.....Detroit
 Bauer, A. Robert.....Detroit
 Bauer, Lester Eugene.....Detroit
 Baugh, R. H.....Detroit
 Baumann, W. L.....Detroit
 Baumer, Moe.....Detroit
 Baumgarten, Elden C.....Detroit
 Beame, A. Duane.....Detroit
 Beaton, Colin.....Detroit
 Beattie, Robert.....Detroit
 Beaver, Donald C.....Detroit
 Beck, Eva F.....Eloise
 Becker, Abraham.....Detroit
 Becker, Jos. Wm.....Detroit
 Becklein, C. L.....Detroit
 Bedell, A.....Detroit
 Beeuwkes, L. E.....Dearborn
 Begle, Howell L.....Detroit
 Behn, Claud W.....Detroit
 Belanger, Henry.....Detroit

Bell, J. Kenner.....Detroit
 Bell, William M.....Detroit
 Bennett, Germany E.....Detroit
 Bennett, Harry B.....Detroit
 Bennett, Zina B.....Detroit
 Benson, C. D.....Detroit
 Benson, Davis A.....Detroit
 Benson, Roland R.....Detroit
 Bentley, Neil I.....Detroit
 Berent, Morris S.....Detroit
 Bergo, Howard L.....Detroit
 Berkowitz, Wm. E.....Detroit
 Berman, Harry S.....Detroit
 Berman, Robert.....Detroit
 Berman, Sidney.....Detroit
 Bernard, Walter G.....Detroit
 Bernath, Gerald J.....Detroit
 Bernbaum, Bernard.....Detroit
 Bernfield, Martin A.....Detroit
 Bernstein, Albert E.....Detroit
 Bernstein, Samuel S.....Detroit
 Bertram, B.....Detroit
 Best, T. H. Edward.....Detroit
 Besancon, J. H.....Detroit
 Bevington, Harry G.....Detroit
 Bicknell, Edgar A.....Detroit
 Bicknell, Frank B.....Detroit
 Biddle, Andrew P.....Detroit
 Birch, John R.....Detroit
 Birkelo, Carl C.....Detroit
 Bittrich, Norbert M.....Detroit
 Black, Perry S.....Detroit
 Blaess, Marvin J.....Detroit
 Blain, Alexander W.....Detroit
 Blaine, Max.....Detroit
 Blanchard, Fred N.....Detroit
 Blashill, James B.....Detroit
 Bleier, Joseph.....Detroit
 Bloch, Abraham.....Detroit
 Blodgett, William E.....Detroit
 Blumenthal, Franz L.....Detroit
 Boccia, James J.....Detroit
 Boehm, John D.....Detroit
 Boell, Arthur F.....Detroit
 Bohn, Stephen.....Detroit
 Boland, J. Rolland.....Detroit
 Boles, A. E.....Detroit
 Bookmeyer, R. H.....Detroit
 Bovill, E. G.....Detroit
 Bower, Franklin T.....Detroit
 Bowers, Leo J.....Detroit
 Bowman, Frank E.....Detroit
 Boyd, John H.....Trenton
 Brachman, D. S.....Detroit
 Bracken, Andrew H.....Dearborn
 Bradshaw, Wm. H.....Detroit
 Braley, Wm. N.....Detroit
 Branch, Hira E.....Detroit
 Brand, Benjamin.....Detroit
 Brando, Russell G.....Detroit
 Brandt, Edward L.....Detroit
 Braun, Lionel.....Detroit
 Breitenbecher, Edw. R.....Detroit
 Brennan, Thomas J.....Detroit
 Breon, Guy L.....Detroit
 Brengle, Deane R.....Detroit
 Briegel, Walter A.....Detroit
 Brines, O. A.....Detroit
 Bringard, Elmer E.....Detroit
 Brisbois, Harold J.....Plymouth
 Brodersen, Harvey S.....River Rouge
 Broemme, William.....Detroit
 Brooks, A. L.....Detroit
 Brooks, Clark D.....Detroit
 Brooks, Charles W.....Detroit
 Brosius, William L.....Detroit
 Broudo, Philip H.....Detroit
 Brough, Glen A.....Detroit
 Brown, A. O.....Detroit
 Brown, Gordon T.....Detroit
 Brown, Harvey F.....Detroit
 Brown, Henry S.....Detroit
 Brown, John R.....Detroit
 Brown, Stanley H.....Detroit
 Brownell, Paul G.....Detroit
 Brunk, Andrew S.....Detroit
 Brunk, C. F.....Detroit

Brunke, Bruno B.....Detroit
 Bryce, John D.....Detroit
 Budson, Daniel.....Detroit
 Buell, Charles E., Jr.....Detroit
 Buesser, Frederick G.....Detroit
 Buller, H. L.....Detroit
 Bullock, Earl S.....Detroit
 Burgess, Chas. M.....Detroit
 Burgess, Jay M.....Detroit
 Burgess, Josephus M.....Northville
 Burns, Robert T.....Detroit
 Burstein, Harry S.....Detroit
 Burstein, Morris M.....Detroit
 Burnstein, I. Marvin.....Detroit
 Burnstine, Perry P.....Detroit
 Burr, George C.....Detroit
 Burton, D. T.....Detroit
 Bush, Glendon J.....Detroit
 Bush, Lowell M.....Detroit
 Buss, John A.....Detroit
 Butler, Harry J.....Detroit
 Butler, L. H.....Detroit
 Butler, Volney N.....Detroit
 Butterworth, Herman K.....Lincoln Park
 Buttram, Edward J.....Detroit
 Byington, Garner M.....Grosse Pte. Park
 Caldwell, J. Ewart.....Detroit
 Calkins, H. N.....Detroit
 Callaghan, T. T.....Detroit
 Campau, George H.....Detroit
 Campbell, Don M.....Detroit
 Campbell, Duncan A.....Detroit
 Campbell, Duncan A.....Detroit
 Campbell, Malcolm D.....Detroit
 Campbell, Mary B.....Detroit
 Candler, Clarence.....Detroit
 Canter, Gayle E.....Detroit
 Cantor, M. O.....Detroit
 Caplan, Leslie.....Detroit
 Caraway, James E.....Wayne
 Carey, Cornelius.....Detroit
 Carleton, L. H.....Detroit
 Carlucci, Peter F.....Detroit
 Carmichael, E. K.....Detroit
 Carpenter, C. H.....Detroit
 Carpenter, C. J.....Detroit
 Carpenter, Glenn B.....Detroit
 Carr, J. G.....Detroit
 Carroll, E. H.....Detroit
 Carroll, Lona B.....Detroit
 Carstens, Henry R.....Detroit
 Carter, John M.....Detroit
 Carter, L. E.....Detroit
 Cassidy, Wm. J.....Detroit
 Castrop, C. W.....Dearborn
 Cathcart, Edward.....Detroit
 Catherwood, Albert E.....Detroit
 Caton, Dorothy Fisher.....Detroit
 Cavell, Roscoe Wm.....Eloise
 Caughey, Manley D.....Detroit
 Cetlinski, C. A.....Hamtramck
 Chance, J. H.....Detroit
 Chapman, Aaron L.....Detroit
 Chapnick, H. A.....Detroit
 Chase, Clyde H.....Detroit
 Chene, George C.....Detroit
 Chenik, Ferdinand.....Detroit
 Chester, W. P.....Detroit
 Chipman, W. A.....Detroit
 Chittenden, George E.....Detroit
 Chittick, William R.....San Diego, Calif.
 Chostner, G. C.....Detroit
 Christensen, C. A.....Dearborn
 Christopoulos, D. G.....Detroit
 Chrouch, Laurence A.....Detroit
 Church, Aloysius S.....Eloise
 Ciprian, Joseph E.....Detroit
 Clark, Benjamin W.....Detroit
 Clark, C. M.....Detroit
 Clark, Donald V.....Detroit
 Clark, George E.....Detroit
 Clark, Harry G.....Detroit
 Clarke, Emilie Arnold.....Detroit
 Clarke, George L.....Detroit
 Clarke, Norman E.....Detroit
 Clausen, Claire H.....Detroit
 Clifford, Charles H.....Detroit

ROSTER MICHIGAN STATE MEDICAL SOCIETY

Clifford, Thomas P.....	Detroit	Douglas, Clair L.....	Detroit	Freese, John A.....	Detroit
Clinton, Wm. R.....	Detroit	Dovitz, Benjamin W.....	Detroit	Fremont, Joseph C.....	Detroit
Clippert, J. C.....	Grosse Ile	Dowdle, Edward.....	Detroit	Freund, Hugo A.....	Detroit
Coan, Glenn L.....	Wyandotte	Dowling, Harvey E.....	Detroit	Friedlaender, Bernhard.....	Detroit
Coates, Carl Amos.....	Dearborn	Dowling, Pearl Christie.....	Detroit	Friedman, I. H.....	Detroit
Cochrane, Edgar G.....	Detroit	Downer, Ira G.....	Detroit	Frothingham, George E.....	Detroit
Cohn, Daniel E.....	Detroit	Doyle, George H.....	Detroit	Gabe, Sugmund.....	Detroit
Cohoe, Don A.....	Detroit	Drake, James J.....	Detroit	Gaberman, David B.....	Detroit
Cole, Fred H.....	Detroit	Drews, Robert S.....	Detroit	Galantowicz, H. C.....	Detroit
Cole, James E.....	Detroit	Droock, Victor.....	Detroit	Gandonyi, Laslo.....	Detroit
Cole, Wyman C. C.....	Detroit	Droste, Arnold T.....	Dearborn	Galerieau, D. B.....	Van Dyke, Mich.
Coleman, Margaret W.....	Detroit	Drummond, Donald L.....	Detroit	Garbutt, Victor L.....	Detroit
Coleman, Wm. G.....	Detroit	Dubin, Joseph J.....	Dearborn	Garipey, L. J.....	Detroit
Coll, Howard R.....	Detroit	Dubnove, Aaron.....	Detroit	Gaston, Herbert B.....	Detroit
Collins, A. N.....	Detroit	DuBois, Paul W.....	Detroit	Gates, Nathaniel H.....	Detroit
Collins, Edmund F.....	Detroit	Dubpernell, Karl.....	Detroit	Gehrke, August E.....	Detroit
Colvin, Leslie T.....	Detroit	Dubpernell, Martin S.....	Detroit	Geib, Ledru O.....	Detroit
Colyer, Raymond G.....	Detroit	Duffy, Edward A.....	Detroit	Geiter, Clyde W.....	Detroit
Condit, L. Irving.....	Detroit	Dundas, Edw. M.....	Detroit	Geitz, Wm. A.....	Detroit
Connelly, Richard C.....	Detroit	Dunlap, Henry A.....	Detroit	Gellert, I. S.....	Detroit
Connolly, Frank.....	Detroit	Dunn, Cornelius E.....	Detroit	Gemeroy, J. C.....	Detroit
Connolly, John P.....	Detroit	Durocher, Edmund J.....	Ecorse	George, A. W.....	Detroit
Connor, Guy L.....	Detroit	Dutchess, Charles E.....	Detroit	Gerondale, Elmond J.....	Detroit
Connors, J. J.....	Detroit	Dwaihy, Paul.....	Detroit	Gigante, Nicola.....	Detroit
Conrad, E. R.....	Detroit	Dwyer, Francis.....	Detroit	Gignac, Arthur L.....	Detroit
Cooksey, Warren B.....	Detroit	Dysarz, T. T.....	Detroit	Gillman, R. W.....	Detroit
Cooley, Thomas B.....	Detroit	Dziuba, John F.....	Detroit	Ginsberg, Harold I.....	Detroit
Coolidge, Maria Belle.....	Grosse Pte. Park			Gittins, Perry C.....	Detroit
Cooper, Edmond L.....	Detroit	Eades, Charles C.....	Detroit	Glasgow, Gordon K.....	Detroit
Cooper, James B.....	Detroit	Eaton, Crosby D.....	Detroit	Glassman, Samuel.....	Detroit
Cope, H. E.....	Detroit	Edgar, Russell G.....	Detroit	Glazer, Walter S.....	Detroit
Corbett, John J.....	Detroit	Elliott, Wm. G.....	Detroit	Glees, J. L.....	Detroit
Cosaglia, Robert P.....	Detroit	Ellis, Seth W.....	Detroit	Glick, M. J.....	Detroit
Cosgrove, Wm. J.....	Detroit	Elvidge, Robert J.....	Detroit	Glowacki, B. F.....	Detroit
Costello, Russell T.....	Detroit	Ely, Lloyd L.....	Grosse Pointe	Gmeiner, Clarence C.....	Romulus
Cothran, Robert M.....	Detroit	Emmert, H. C.....	Detroit	Goerke, Elmer.....	Romulus
Cotruro, L. D.....	Detroit	Engel, Earl H.....	Wyandotte	Goetz, Angus G.....	Detroit
Cotton, S. O.....	Detroit	Engel, John B.....	Detroit	Goldberg, Arthur.....	Detroit
Courville, Chas. W.....	Detroit	Ensign, Dwight C.....	Detroit	Goldberg, Nathan.....	Detroit
Cowan, Angus L.....	Detroit	Ensing, Osborn.....	Detroit	Goldin, M. I.....	Detroit
Cowan, Wilfrid.....	Detroit	Epstein, S. G.....	Detroit	Goldman, Perry.....	Detroit
Coyne, Douglas Ruthven.....	Detroit	Erickson, Milton H.....	Eloise	Goldstone, R. R.....	Detroit
Craig, Henry R.....	Eloise	Erkitz, Arthur W.....	Detroit	Gonne, Wm. S.....	Detroit
Crane, Langdon T.....	Detroit	Erman, Joseph J.....	Detroit	Goodrich, B. E.....	Detroit
Cree, Walter J.....	Detroit	Eschbach, Joseph W.....	Dearborn	Gordon, Douglas L.....	Detroit
Crews, Thomas H.....	Detroit	Estabrook, Bert U.....	Detroit	Gordon, John W.....	Detroit
Croll, L. J.....	Detroit	Ettinger, Clayton J.....	Detroit	Gordon, William H.....	Detroit
Crossen, Henry F.....	Detroit	Evans, Leland S.....	Redford	Gorelick, Harry S.....	Detroit
Croushore, J. E.....	Detroit	Evans, William A.....	Detroit	Gorning, Raymond P.....	Detroit
Cruikshank, Alexander.....	Detroit	Evans, William A., Jr.....	Detroit	Gottschalk, Fred W.....	Detroit
Curhan, Joseph H.....	Detroit	Falick, Mordecai Louis.....	Detroit	Gould, S. Emanuel.....	Eloise
Curry, F. S.....	Detroit	Fallis, Lawrence S.....	Detroit	Goux, R. S.....	Detroit
Curtis, Frank E.....	Detroit	Fandrich, Theodore.....	Detroit	Grace, Joseph M.....	Eloise
Cushman, H. P.....	Detroit	Farbman, Aaron A.....	Detroit	Grain, Gerald O.....	Detroit
		Farbman, Simon S.....	Detroit	Grajewski, Leo E.....	Detroit
Dail, Oran C.....	Detroit	Fauman, Davis H.....	Detroit	Gramley, William.....	Detroit
D'Alleva, A. J.....	Detroit	Fay, George E.....	Detroit	Grandfield, Francis J.....	New Boston
Dana, Harold M.....	Detroit	Felcyn, W. George.....	Detroit	Granger, Francis L.....	Detroit
Danforth, J. C.....	Detroit	Feldstein, Martin Z.....	Detroit	Grant, Heman E.....	Detroit
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*Davis, C. R.....	Detroit	Ferguson, Thos. W.....	Detroit	Greenberg, Morris Z.....	Detroit
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MAY, 1939

*"Every man owes some of his time to the up-
 building of the profession to which he belongs."*

—THEODORE ROOSEVELT.

EDITORIAL

AN OPEN LETTER TO A SENATOR

MY dear Senator:

In your legislative capacity, you are called upon from time to time to pass upon measures that affect the health as well as the general welfare of the people of the state. Sometimes the issue is clouded by the apparent claims of the various healers (and in this term is included the medical profession), who apparently are seeking a monopoly of the field of caring for the sick for themselves. There are no "schools" of healing which are entitled to a hearing *per se*. Even the doctors are not entitled to consideration, as doctors. However, what is

known as scientific medicine taught in tax-supported colleges and universities is entitled to the only consideration. No so-called pathy, such as osteopathy, chiropractic, naturopathy, is taught in any tax-supported school in the English-speaking world. If one wishes to become an osteopath, a chiropractor or a naturopath, he must attend a proprietary school. He cannot obtain the required training in any university or college that is supported by taxation, such as the University of Michigan or the municipal university of Wayne. This means that the citizens, by and large, in a corporate capacity, do not recognize the training given in institutions which teach osteopathy, chiropractic, naturopathy or any of the so-called cults.

Up to about a quarter of a century ago, there were 160 medical schools in the United States, about half of which were proprietary schools, depending upon fees of students for their maintenance. The rapid growth of medicine and kindred sciences such as physics, chemistry and other laboratory sciences, rendered it impossible for the unsupported proprietary medical schools to continue; as a result all of them have ceased to exist as such. The expense of medical education has become so heavy that it requires not only students' fees, which have been very materially advanced, but also tax support in addition. This has meant a curtailment of the number of students who have been admitted to the study of medicine, and promotion of a higher standard of premedical education as well. This is all in the interests of the people and not necessarily in the interests of the doctor, who has had to meet these requirements not only in cash outlay but in years of preparation as well.

Is it not reasonable, therefore, when your honorable body formulates legislation in matters pertaining to public and private health, that a doctor who has been educated in tax-supported and publicly recognized medical schools of the state (any state) should be considered for position of director of medical welfare or other positions requiring specialized medical knowledge and training?

Scientific medicine at times may be imperfectly practiced, and, despite the fact that through it many diseases such as smallpox.

typhoid, diphtheria, malaria and a number of others, have been conquered, it is at times disappointing. We admit it. In a hundred or five hundred years from now, there will be still problems that medicine will probably not have solved. You, however, realize the fact that any solution is in the line of efforts that are now being applied. There is no limit to the curative agents that scientific medicine may employ, from rest in bed to the administration of physical agents and of drugs as well. Osteopathy, which has possibly the nearest (though not very near) claim to a system of healing, has realized its own inefficiency. Early it has sought and obtained the legal right to use narcotic drugs, and, without any legal right to do so, some osteopaths have ceased to rely upon purely physical methods of manipulation of bones and joints and are using drugs, which practice is outside of their training entirely.

You have been selected Senator because your constituents look upon you as a man of ability and judgment and they look to you to give time and effort to making wise selections which they themselves in the mass as voters are not in a position to do. We repeat: doctors of medicine as such, osteopaths, chiropractors, or naturopaths are not entitled to consideration for themselves. There is an old Latin saying, *Bonus populi suprema lex*, the good of the whole people should be the supreme law. The state has recognized scientific medicine, not doctors *per se*. Therefore, scientific medicine as personified by those who have met the conditions and standards you have laid down in tax-supported medical colleges is commended to your consideration. The desire to be fair disposes many of you to consider the various so-called schools that are clamoring for recognition. The public good, however, demands that you consider only the service that scientific medicine is capable of rendering to the people at large.

MORITURUS TE SALUTO

THE following letter is presented as a remarkable reaction of a sufferer from cancer. It is singularly appropriate at a time when the attention of the medical profession is turned toward this scourge. The writer of the letter is a comparatively young man, thirty-nine years of age, by profession an electrical engineer. Feeling

that he had something to say that the profession should know, the letter was addressed to the American Association for the Study of Neoplastic Diseases, Hotel Statler, Detroit. It was forwarded to Dr. Rollin H. Stevens of Detroit, on the occasion of a visit to Detroit of Dr. Clarence Cook Little, who was entertained at a noon luncheon at the Detroit Athletic Club. Dr. Little is the director of Roscoe B. Jackson Memorial Laboratory and Managing Director of the American Society for the Control of Cancer. The letter was read by Dr. Little to a group of forty guests, physicians and surgeons, who were interested in the subject of cancer control. It is here presented as written.

"I wish that I, as a layman, were permitted to address your meeting for just fifteen minutes. I believe I have a message which should be brought personally to each and every physician and surgeon. Such a message can be so much better stated orally and in person, but I will attempt to present it to you abbreviated in this letter and ask that you forward it to your members and to the profession.

"Two years ago I was operated on for carcinoma of the pelvic colon, resection was not possible, and I have a permanent colostomy. The operation was a beautiful piece of work. I have never had the slightest discomfort because of it, but there are now, even after talking proper x-ray therapy as a preventive measure, more than one definite recurrence. The worst of these is in the liver. Now, I feel that everything possible has been done for me and I am reconciled to my fate, but I believe that my experience should be called to the attention of others who will be called upon to make similar diagnoses.

"My experience has led me to believe that you of the medical profession are more afraid of cancer than the layman. You are afraid to diagnose perfectly clean-cut symptoms of cancer. You will experiment around with various treatments until as a last resort the patient goes elsewhere, only to find that if it had been properly diagnosed, the surgery would have been simple and the cure inevitable. In my own case, at the first indication of trouble I went to my physician. The symptoms I learned later were exactly those of carcinoma, but also of colitis. After four months of treatment for colitis, during which time I steadily lost ground, I went to a clinic in a small Detroit hospital. There I was given the same diagnosis with the same result. I went to a physician in a nearby city and the same treatment was specified. Finally, ten months after the first 'exposure' to diagnosis, I was taken to a hospital in Chicago, where I was given every possible test until, as a last resort, I was taken to the x-ray department, and there in less than two minutes the lesion was shown on the fluoroscope. It is true that the lesion had developed considerably—so much so, in fact, that no one concerned with my case was satisfied with the result or had any hope for a cure.

"However, this is what I am driving at—all of these physicians, to my personal knowledge, this clinic, this large hospital, all had had similar cases, all had had in the end to come to the diagnosis of cancer. Oh, I know you can say that mistakes are made the other way too, but they are not frequent,

and are preferable to letting any lesion progress to where the patient may expect only a short life after the trouble of the operation.

"My message to you of the medical fraternity is—*do not hesitate to make the worst diagnosis first. Say the bad news;** then, if desirable, attempt to disprove it, but under no circumstances are you justified in trying to get the layman to report his symptoms early only to be stalled along in the diagnosis until an inoperable lesion has developed. All of the efforts to educate the layman are commendable, but much remains to be done to educate the physician to recognize the symptoms and to not hesitate in so diagnosing them.

"I would not consider that the above, coming from one man, should hold too much weight, except that I personally have investigated half a dozen or more different cases and find that in all those cases a somewhat similar history may be reported. You as physicians will prescribe a tonic or digestive for a budding case of carcinoma of colon, you will ream out the urinal canal when the prostate is already affected, and you will let a lump in a woman's breast develop to where something has to be done, and that too late.

"This may sound like a very severe criticism of a noble profession—a profession I have the utmost respect for. But I believe it to be justified, and that you physicians can take it from one who has but a few months more in which to try to make his experience help some other victim of this messenger of the grim reaper."

This is wholesome advice. Of course, those who have practiced medicine for a number of years have encountered instances in which patients, even when informed of their condition beyond a doubt, refuse to follow the advice given. Others, fearing the worst, refrain from consulting their physicians, who, to them, are a symbol of despair, as well as hope, until successful treatment of any kind is out of the question. Most physicians feel that the doctor should be very sure of his diagnosis before he pronounces a malady to be cancer.

A year or so ago, this JOURNAL printed a series of articles on the general subject of being prepared for the cancer patient. There are many of us who are not prepared personally to render the necessary treatment, which is either surgery or radiotherapy. It is our duty, however, to see that the patient is recommended to some one who can render adequate service; not only this, but to follow him up to see that he avails himself of the opportunity afforded. No suspicious lesion should be allowed to get away from the physician.

The writer of the letter is of the opinion that it would be much better to call the lesion cancer, and then, on further study, to find out that one is mistaken, than to call it something else, probably with equally

good reason at the time, and find later that the lesion were malignant. This is a matter of opinion. One must follow his best light. The writer is correct in his assertion that the layman has not the same fear of cancer that the physician has. This, of course, is due to the fact that the physician sees more of malignant diseases and their inevitable end-results where not given early and adequate attention. The letter, however, is presented as a *bona fide* contribution of one who is resigned to his fate, and whose outlook is philosophical.

TO THE CHIEF, FAREWELL

DR. ANGUS McLEAN, who died in Detroit on April 11, was one of the outstanding surgeons of Detroit and Michigan for nearly half a century. He might properly be called the doctor's surgeon; so widely and favorably known were his skill as diagnostician and operator, that he was called by members of the medical profession to minister to themselves and their families. During the early part of the present century and for many years, his referred practice was very large; it included patients sent to him from all over Michigan and Western Ontario.

Not only was Dr. McLean a skillful surgeon, he was also an excellent teacher and lecturer. Many of the older graduates of the Detroit College of Medicine will recall his lectures in surgical anatomy which he gave with great clarity in a somewhat highly pitched voice. His clinical discussions bespoke a clear understanding of the subject. Dr. McLean always had an understudy or two in his office, for he was a friend of the young man. To them he was the chief. All of these erstwhile assistants have made a success of their private practice.

Dr. McLean was well disposed towards everyone. He was an extrovert—an optimist in a real sense, gifted with an unusual appreciation of humor. It might be said of him that "he was a fellow of infinite jest, of most excellent fancy." In fact, one might continue and speak of his gibes, his gambols, his songs, his bursts of merriment that were wont to set the table in a roar. He was distinguished in appearance with a well poised head, with hair that turned to gray as the years advanced; however, de-

*Italics ours.

spite his nearly four score years, no one looked upon him as an old man. His unique personality stood out in any group of which he was a member. We have mentioned his referred practice; his large personal following almost to his later years was testimony of his splendid services to mankind.

To this public spirited citizen, soldier, master surgeon, friend to man, what better inscription than that Miltonic verse:

Nothing is here for tears, nothing to wail
Or knock the breast; no weakness, no contempt,
Dispraise, or blame; nothing but well and fair,
And what may quiet us in a death so noble.

WILLIAM H. HAUGHEY

WHEN one has reached the age when he and others of his generation have either reduced their hours of labor or have retired from practice, memory of their former activities fades, and the younger generation hardly realizes what is due these pioneers of medical practice: their endurance, foresight, faith in the progress of medicine, and loyalty in their acceptance of positions of trust. Among those pioneers of the horse and buggy days was Dr. William H. Haughey.

His industrial and railroad work brought him early to the branch of surgery, especially pelvic and abdominal. He is credited with having performed the first appendectomy in the history of Battle Creek and to have reported to the Calhoun County Medical Society in 1896 a new suture, soon to be known as the Haughey Suture, a great advance before the time of the buried suture.

In 1902 the State Medical Society was re-organized, based on County representation and division into Councilor Districts, and it was here in his work as a member and Secretary of the Council that his strong personality and executive ability were shown over the nine years of service. The present high status of the State Medical Society is due largely to the unselfish devotion of these members: the accomplishment of the purpose of making Michigan a leader in the galaxy of States, which forms the American Medical Association.

In all these various activities he did not neglect local interest. He was elected to membership in the Calhoun County Medical

Society in 1888, which membership he still enjoyed at the time of his death. His counsel and aid brought it through many a difficulty, especially through the strenuous days of 1893, when it voted to disband. Only through Dr. Haughey's efforts did existence continue; he became its Secretary, serving for nine years.

He helped to organize the Nichols Memorial Hospital Training School for nurses and served for more than thirty years on the executive staff of the hospital. Through his efforts the St. Vincent DePaul Society, a welfare organization, was organized in Battle Creek. He served as President for thirty years, and was especially active during the last ten years.

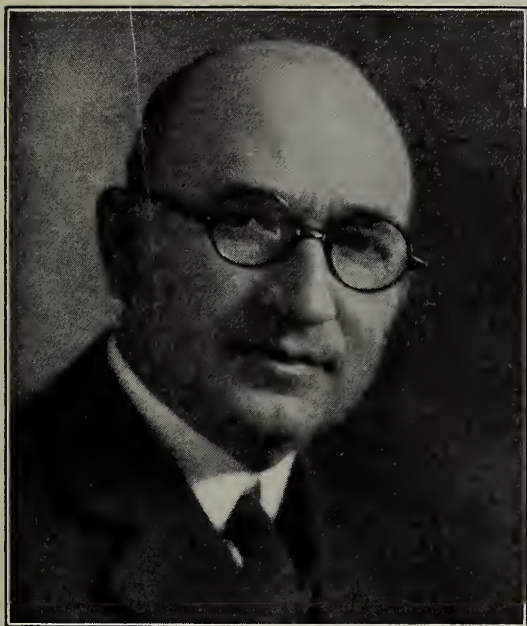
A generation ago the family physician was the family's trusted counselor, not only in health and sickness, but in its daily affairs. Held together by mutual confidence, such personal relationship existed throughout the years. That family responsibility Dr. Haughey enjoyed to the fullest extent during his long active medical career.

To Dr. Wilfrid Haughey, his son, and to the other members of the family a deep sympathy is extended. The State mourns its loss.

ANDREW P. BIDDLE

Man is a tool-using animal. Thus did Carlyle define the *genus homo*. No other calling demands of its devotees the skill in the use of the eye, the ear, the sense of touch that medicine demands of the doctor. The tool is an extension of the hand or the eye or ear with a specialized end in view. To achieve the highest, the whole man must be educated. The lawyer, the clergyman, the merchant or the industrialist may succeed with the clumsiest hands, or with the wholly untrained eye and ear. True, medicine is an art as well as a science. The doctor with only the accumulated knowledge of his profession, however, would be a sorrowful object. He must be trained to observe, to use his special senses and his hands as well—hence he becomes a tool-using animal in the broadest sense. Of course, he is much more. Microscopes, stethoscopes, scalpels and artery forceps, and other things, as well as chemical and physical methods of examination and study are his tools.

MICHIGAN DOCTORS HONORED



DR. JAMES D. BRUCE



DR. HENRY R. CARSTENS

Michigan has been especially honored this year by the American College of Physicians in recognition of two of the members of the Michigan State Medical Society. Dr. James D. Bruce, vice president of the University of Michigan and director of the department of postgraduate medical education, has been made president of the College of Physicians, and Dr. Henry R. Carstens of Detroit has been made a member of the Board of Directors. Dr. Bruce's efforts in the promotion of

postgraduate medical education, which have been so effective in the State of Michigan, have won national recognition. His pioneer work has borne fruit not only in this state, but in many other states throughout the Union. Dr. Bruce is to be congratulated on his election. Dr. Henry Carstens, president of the Wayne County Medical Society, and for a number of years member of the executive committee of the Michigan State Medical Society, will continue to contribute in an executive way to the American College of Physicians.

 PHYSICIANS AS ARTISTS

"From time immemorial, medicine and art have been closely associated. . . . The eye that so quickly and accurately evaluates the gradations in color and texture between normal and pathologic tissue coördinates the hand that wields the painter's brush. The man who chooses medicine as his life's work is largely motivated by a love for his fellow man, else he would select a vocation offering greater monetary reward. From the beginning, he is trained to exercise his powers of observation, and in time develops imagination, sympathy, understanding, philosophy and reverence, all of which are the very essence of art. Moreover, he deals with that most exquisite form of divine art and beauty, the human body.

"At the least, every physician is able to develop a sensitiveness to and an appreciation for fine art. He can also cultivate a hobby which, if not one of the fine arts, is in the class of 'work by the side of work.' Dr. Charles A. Dana, who has always stressed the value of cultural medicine, has advised: 'Be a collector, for example, of stamps or automobiles, or old books, or neckties or pins; or find diversion in some collateral branch of science; the lore of birds, of fishing and shooting. Make a garden or cultivate shrubs and flowers. These kinds of activities will make your life happier and your professional character more attractive and effective.'"—quoted from *Parergon*, published by Mead Johnson & Company, Evansville, Ind.



WILLS

Their Importance and Their Preparation

BY HENRY C. BLACK and ALLISON E. SKAGGS

ALTHOUGH few of us will dispute the importance of making a will, a surprising number of people either have never made one or have not brought up to date one made years ago. It is one of those things which we all admit should be done, and often fail to do. Lack of a will may not only dispose of your property in unjust proportions to unintended heirs, but may also allow much of it to be dissipated through inept liquidation.

The importance of a will varies of course with the circumstances. A married man, for example, survived by a wife and two children, might propose to distribute his estate exactly as the law provides, i.e. in Michigan one-third to each; yet a man with no children might have altogether different plans for the distribution of his property than the state law would make mandatory in the event he died without a will. Also when small children are involved, he might much prefer to have his wife inherit his property and support his children with it, rather than trust to the Probate Court to appoint a guardian for them, and require the wife, if so appointed, to separate their funds from hers. The possible situations are so varied that almost any kind of a problem could arise, the solution of which should as far as possible be left to the parent, rather than to a county officer, no matter how intelligent, or how understanding.

Several situations in our experience come to mind in this connection. For example a young doctor died a few years ago without a will, leaving a wife and small child, and a life insurance policy payable to his estate. The policy was taken out prior to his marriage, and he "hadn't gotten around" to change the beneficiary. Because there was no will, it was necessary for the court to appoint a guardian to receive the child's interest, and because the deceased had married against his father's wishes, an attempt was made to prove to the court that the widow was not the proper person to be ap-

pointed. A long court battle resulted in which a considerable amount of the money was spent in court costs and attorney fees, and although the money was finally given to the widow for the support of the child, a will properly executed would have prevented this problem as well as allowing an orderly liquidation of his practice, which, of course, was impossible under the circumstances.

It should not be necessary to cite very many illustrations to emphasize the importance of a will. Many doctors think their entire estate is in life insurance, and a will is therefore unnecessary, yet the outstanding accounts receivable at the time of the doctor's death very often amount to a considerable part of the estate, and if handled properly can greatly assist in the support of those who survive. These accounts are just as much part of an estate as would be securities, bank accounts, etc.

Granting then the *importance* of making a will, let us discuss its preparation. As a doctor said to us recently after admitting a substantial estate, "What do you do to make a will—how do you go about it?"

Unfortunately there are several fairly common errors made by doctors when it comes to drawing a will. Possibly a friend, not an attorney, offers to do it for him without cost, as a favor. We have seen altogether too many attempts by well meaning yet incompetent people to draw wills. There is just one person who is competent legally to put in writing your wishes in this matter and that is the best attorney you know.

Another common error often made is expecting this attorney to prepare such a document without having all of the pertinent facts. No one should attempt to designate who is to receive his estate without knowing what makes up that estate, and what problems the executor of the will might encounter in the administration of it.

The discussions to follow will attempt to

(Continued on page 437)

President's Page

SPRINGTIME

Springtime is with us again. Spring with all its promises and cheer. Nature's forces are at work and all take new life and inspiration.

When Autumn rolls around, the harvest depends upon the cultivation and supervision that has been given during the developmental period.

Medically we are in the Springtime of many social changes. By legislation and by other means seeds are being planted. Some are good seeds, others are tares. Some will fall on good ground, other on stony ways. The best of plants needs careful supervision.

Mature judgment, an eye to the harvest, the sunshine of optimism and the careful pruning of adventitious buds are our tools of cultivation.

There must be no let-up in our labors. The workmen in the vineyard must labor unceasingly that the harvest meet with expectations.



President, Michigan State Medical Society.

Department of Economics

L. FERNALD FOSTER, M.D., Secretary

EXECUTIVE COMMITTEE OF THE COUNCIL

Meeting of April 16, 1939

Highlights:

1. MSMS opposition to Wagner Bill (S. 1620) forwarded to Congressmen.
2. Amendments to Medical Section of Michigan Welfare Bill Proposed.
3. Executive Committee does not favor transfer of administration of Afflicted Child from Crippled Children Commission to Welfare Departments.
4. Progress on Michigan voluntary group medical care reported.
5. Michigan's Delegates to AMA urged to work for Public Relations Committee in AMA.
6. Albert H. Miller, M.D., Gladstone, chosen Councilor of 12th District.
7. Advisory Committee to Nurses Board nominated.

1. *Roll Call.*—The meeting was called to order at 3:10 P. M., in the Olds Hotel, Lansing. The minutes of the meeting of March 19 were read and approved, motion of Drs. Riley-Carstens. Carried unanimously.

2. *"Routine Laboratory Service."*—The agreement between the MSMS and the Michigan Hospital Association re administration of anesthesia under the contracts of the Michigan Society for Group Hospitalization was discussed with Dr. Reuben Maurits of Grand Rapids, with particular reference to the desires of the Michigan anesthesia group. The matter of the protocol and subsequent agreement was explained to Dr. Maurits, and fully clarified.

Letter from the Michigan Hospital Association re "routine laboratory service" was read.

3. *Financial Report.*—This was presented, and studied by the members of the Executive Committee. Bills Payable for the month were approved on motion of Drs. Brunk-Moore. The bond report was presented by Wm. A. Hyland, Chairman of the special Bond Committee, and approved, with a vote of thanks to Dr. Hyland.

The Joint Committee on Health Education: Dr. Corbus requested transfer of the budgetary allowance of \$500 to the Joint Committee. Motion of Drs. Carstens-Moore that the Secretary be instructed to make \$500 authorized contribution to the Joint Committee at this time. Carried unanimously. Dr. Corbus outlined the activities of the Joint Committee, especially the visual education project.

Annual Meeting: Question re expenses of entertainment at the MSMS annual meeting resulted in request to the Secretary that he advise the Kent County Medical Society and the Wayne County Medical Society that the Michigan State Medical Society will assume the obligation of expenses for entertaining the House of Delegates on the Monday evenings of the annual MSMS meetings.

4. *Wagner Bill (S. 1620).*—President Luce reported that the letter which had been approved by the Executive Committee of the Council to go to the Senators and Representatives in Washington, D. C., had also received the approval of Dr. E. H. Cary, Chairman of the A.M.A. Legislative Committee, and that the letters are now being sent out by the M.S.M.S. Executive office. He also outlined the special White House Conference on Child Welfare called in Washington, D. C., for April 26.

Committee Reports:

5. *Legislative Committee reports (meetings of March 21 and April 16).*—Chairman Miller presented

these reports, including the recommendation that the MSMS approve the principle of the following amendment to the Michigan Welfare Bill, H. B. 209, Section 57-K, line 42: "The County Board shall appoint a properly qualified and licensed Doctor of Medicine as the head thereof who shall devote the amount of time necessary to carry out the provisions of this act, and whose salary shall be fixed by the county welfare board, subject to the approval of the county board of supervisors, and an advisory committee consisting of one doctor nominated by the county medical society, one dentist nominated by the district dental society, and one pharmacist nominated by the district pharmaceutical society, to advise as to standards and methods for the administration of medical care and to assist in auditing and reviewing bills for medical care."

The recommendation of the Legislative Committee re the afflicted child administration was also approved: that the M.S.M.S. transmit a letter to the House of Representatives' Ways and Means Committee and also to the Committee on Social Aid & Welfare, that the M.S.M.S. does not favor the transfer of the administration of the afflicted child to the welfare commission at the present time (reasons to be listed in letter to committees), and also that the M.S.M.S. is opposed to the allocation of monies to the various counties, based on past experience.

Chairman Urmston outlined activities re the pathological bill (S. B. 304).

Motion of Drs. Moore-Carstens that the Legislative Committee report and recommendations be approved. Carried unanimously.

Chairman Miller's report on the present status of the voluntary group medical care bill (H. B. 215) resulted in President Luce's recommendation that the names of the incorporators and the board of directors should be chosen promptly. The Secretary was instructed to request the Committee on Distribution of Medical Care for suggestions re the incorporators and the board of directors; also full information on the committee's plan of autonomous action by the county medical society in voluntary group medical care plans; and other full data, to be presented to the Executive Committee May 1—motion of Drs. Moore-Riley and carried unanimously.

The minutes of the Committee on Distribution of Medical Care (meeting of April 2, 1939) were approved on motion of Drs. Riley-Carstens. Carried unanimously.

Maternal Health Committee. The minutes of the meeting of March 22 were approved, on motion of Drs. Brunk-Carstens. Carried unanimously.

Medico-Legal Committee. The minutes of the meeting of March 28 were approved.

6. *Taxation*.—Brief prepared on this subject was read and approved and ordered sent to the Income Tax Department.

7. (a) *U. P. Secretaries Conference* of March 26: Report was given by Secy. Foster; the Secretary also gave a report on plans for the U. P. Society meeting in Escanaba on August 23-24. (b) Dr. Foster gave a progress report on the 1939 M.S.M.S. Convention, including selection of E. J. McCormick, M.D., for address of Thursday evening, Sept. 21, on "Americanism." The Secretary stated that he and Mr. Burns would meet with the Grand Rapids Local Committee on Arrangements on April 23.

8. *Affiliate Fellowship* in A.M.A. for R. W. Gillman, M.D., Detroit, was recommended on motion of Drs. Carstens-Brunk.

9. *A.M.A. Meeting in Detroit*.—President Luce brought up the request of the Detroit Convention Bureau that the A.M.A. be urged to come to Detroit for 1942. Inasmuch as the 1941 A.M.A. convention will be in Cleveland, the Executive Committee felt that there would be little chance of inducing the A.M.A. to meet in Detroit in 1942, but approved an invitation to the A.M.A. to meet in Detroit in 1943, or 1945, and instructed the A.M.A. Delegates from the M.S.M.S. to work toward this end.

10. *Committee on Public Relations, A.M.A.*—President Luce requested instructions to the M.S.M.S. Delegates to the A.M.A. re a committee on Public Relations for the A.M.A. Motion of Drs. Riley-Moore that the M.S.M.S. Delegates to A.M.A. be instructed to work vigorously for the adoption of such a committee in the A.M.A., which is urgently needed at this time.

11. *Refugee Children*.—President Luce presented a letter requesting the use of his name on the stationery of the committee working to aid refugee children. Motion of Drs. Riley-Moore that President Luce be authorized to allow his name to be used in this matter. Motion carried.

12. *Councilor for 12th District*.—A successor to C. D. Hart, M.D., deceased, was nominated by President Luce: Dr. Albert H. Miller of Gladstone. Motion of Dr. Carstens seconded by Drs. Moore and Brunk that the Executive Committee of the Council approve President Luce's appointment of Dr. Miller as Councilor of the 12th District. Carried unanimously.

13. *Maternal Health League of Michigan*.—A communication to President Luce from this League was read and on motion of Drs. Moore-Carstens referred to the Committee on Maternal Health of the M.S.M.S. for study and report back to the Executive Committee of the Council with recommendations. Carried unanimously.

14. *Resolutions on the deaths* of Councilor C. D. Hart, M.D., of Wm. Haughey, M.D., and of Angus McLean, M.D., were approved. Motion of Drs. Moore-Carstens and carried unanimously.

15. *"Hospital Audit Bureau"*.—This finance plan was discussed. In view of the fact that this is strictly a private enterprise and that the Auditor General does not object to it, motion was made by Drs. Brunk-Riley that the previous action of the Executive Committee of the Council be rescinded, and that this information be placed in the Secretary's Letter. Carried unanimously.

16. *Advisory Committee to Nurses*.—The request

of the Michigan State Nurses Association for a list of 7 physicians as nominees for the Advisory Committee in connection with the new Nurses Law, was read. Motion of Drs. Brunk-Moore that approval be given to the following list: Ruth Herick, M.D., Grand Rapids; Lloyd Harvie, M.D., Saginaw; Shattuck W. Hartwell, M.D., Muskegon; R. C. Perkins, M.D., Bay City; C. G. Clippert, M.D., Grayling; Wm. N. Braley, M.D., Detroit; Ellery A. Oakes, M.D., Manistee. Motion carried unanimously.

17. *Labor Board's New Rule 15*.—A letter from Dr. E. S. Parmenter of Alpena re new Rule 15 was presented. It was felt that all insurance companies should be requested to eliminate special reports and sworn statements (as most insurance companies are doing); but if the insurance company fails to do so, it should be billed not only for the examination but for the notary fee.

18. The Secretary presented a suggested name for the revamped Northwest Regional Conference: "National Conference on Medical Service."

This proposed name was approved by the Executive Committee of the Council.

19. *Adjournment*.—The meeting was adjourned at 8:30 p. m. and the Chair thanked all for their attendance and helpful advice.

COUNCIL AND COMMITTEE MEETINGS

1. Sunday, April 2, 1939—Committee on Distribution of Medical Care—Hotel Statler, Detroit—2:00 p. m.

2. Sunday, April 16, 1939—Preventive Medicine Committee—State Health Laboratories, Lansing—10:00 a. m.

3. Sunday, April 16, 1939—Advisory Committee on Syphilis Control—State Health Laboratories, Lansing—10:00 a. m.

4. Sunday, April 16, 1939—Advisory Committee on Tuberculosis Control—State Health Laboratories, Lansing—10:00 a. m.

5. Sunday, April 16, 1939—Legislative Committee—Hotel Olds, Lansing—11:30 a. m.

6. Sunday, April 16, 1939—Executive Committee of The Council—Hotel Olds, Lansing—2:00 p. m.

7. Wednesday, April 26, 1939—Committee on Distribution of Medical Care—Hotel Statler, Detroit—2:00 p. m.

8. Sunday, May 7, 1939—Executive Committee of The Council—Hotel Statler, Detroit—12:00 noon.

WILLS

(Continued from page 434)

point out just how the estate may be evaluated, what part the assets of the practice play in the estate and the possibility of determining some idea of the probable value of the uncollected accounts receivable. From these suggestions it will be our hope that the reader who has not already done so will take the necessary steps to acquaint himself with just what property he owns, and have a will drawn now.

WOMAN'S AUXILIARY

President—Mrs. P. R. Urmston, 1862 McKinley Avenue, Bay City, Michigan
Sec.-Treas.—Mrs. R. E. Scrafford, 2210 McKinley Ave., Bay City, Michigan
Press—Mrs. J. W. Page, 119 N. Wisner Street, Jackson, Michigan

Bay County

The officers of the Auxiliary of the Bay County Medical Society elected March 8, 1939, at a dinner meeting held at the Bay City Country Club, are as follows: President, Mrs. A. D. Allen; president-elect, Mrs. W. R. Ballard; vice president, Mrs. J. W. Gustin; recording secretary, Mrs. C. W. Reuter; treasurer, Mrs. H. M. Gale; corresponding secretary, Mrs. J. N. Asline.

There were fifteen members present at the meeting.

Mrs. R. E. Scrafford, retiring president, opened the meeting and turned the presidential duties over to Mrs. Allen after the election. Plans for the coming year were discussed, after which the meeting adjourned.

Calhoun County

The Auxiliary of the Calhoun County Medical Society met Tuesday, March 7, at the Nurses Lodge of Community Hospital for a day of sewing for the hospital. Twenty members were present, and one hundred seventy-five garments were completed.

A special guest for luncheon was Miss Morgan, the newly appointed nursing supervisor.

A business meeting followed, and plans were made for the April meeting with Mrs. R. A. Stiefel as hostess.

An invitation to visit the Society either in April or May was sent to the State President and Secretary.

Jackson County

The Women's Auxiliary met at the home of Mrs. Harold Hurley, Tuesday evening, March 21, for a social evening. Mrs. Horace Porter, chairman, and committee composed of Mesdames John Van Schoick, Corwin Clark, John Smith, Courtland Shepler, and Frank Gibson served the dinner.

A short business meeting was held, Mrs. R. H. Alter presiding. Routine reports were read, and the following members were named for the nominating committee: Mesdames John Smith, chairman, W. L. Finton, Cecil Corley, and Thomas Hackett.

The remainder of the evening was spent in playing bridge and Michigan rum, the prizes being awarded to Mesdames John Ludwick, and Barry Greenbaum.

* * *

Kalamazoo

The March meeting of the Auxiliary to the Kalamazoo Academy of Medicine met at the home of Mrs. W. G. Hoebeke. Twenty-one members enjoyed a coöperative dinner. As a part of the city-wide drive starting April 16, the Bronson Hospital film, "Emergency Case," was presented showing how vital is the necessity for more adequate facilities. The pertinent remarks of Mrs. Matthew Peelen further stressed the great service this hospital renders to the city.

The president, Mrs. F. M. Doyle, appointed Mrs. Wm. Scott to represent the Auxiliary on the Child Welfare Board.

The program of the Mental Hygiene Institute held at Walwood Hall, March 22, was announced.

A tea was given April 5 at the Civic Auditorium, for the state nurses during their visit in Kalamazoo. The committee in charge was composed of: Mrs. S. E. Andrews, chairman; Mrs. W. A. Jennings, co-chairman; committee, Mrs. Wm. Shackleton, Mrs. W. B. Crane, Mrs. K. F. Bennet, Mrs. E. G. Upjohn, Mrs. J. R. MacGregor, Mrs. J. C. Volderauer, Mrs. J. Malone, Mrs. R. McNair, and Mrs. P. M. Fuller.

BARBARA K. AACH,
Publicity Chairman.

Lapeer County

On Friday evening, March 10, the Lapeer County Medical Society and Auxiliary were dinner guests of Dr. and Mrs. F. A. Hanna at the Michigan State Home and Training School. After dinner the ladies of the Auxiliary met at Mrs. Hanna's apartment for a short business meeting. One new member joined the group. Two pamphlets describing the aims of the Auxiliary were read and discussed. Games were then played for "white elephant" prizes.

The April meeting was a pot-luck dinner with Mrs. F. A. Tinker of Lapeer.

MRS. D. J. O'BRIEN,
Press Chairman.

Monroe County

The Women's Auxiliary of the Monroe County Medical Society held a bridge supper at the Monroe Country Club for their March meeting.

(MRS. VINCENT) MARTHA BARKER.

Washtenaw County

Prof. John L. Brumm, head of the University School of Journalism, was the guest speaker at the dinner meeting of the Washtenaw County Medical Auxiliary held March 3 at the Michigan Union. Mr. Brumm read a very clever, original, one-act play entitled "Scrambled Ego."

A benefit bridge was given at the Michigan League, April 21, to raise funds for the special projects of the Society.

Mrs. Howard Cummings and Mrs. H. W. Riggs were co-chairmen of the affair.

CECELIA Y. ROSS.

Kent County

Dr. Lemoyne M. Snyder, medicolegal counselor of the ballistics department, Michigan State Police, Lansing, was guest speaker at the March meeting. He regaled the members with several choice bits concerning widely publicized crimes, and also imparted a great deal of worthwhile information which was most timely. Basing his talk on his title, "The Part Medicine Can Play in the Elimination of the Coroner and Detection of Criminals," Dr. Snyder discussed the new bill that has been introduced in the State Legislature, abolishing the present coroner system and setting up a new, more modern and scientific plan. The bill has been carefully drawn and

(Continued on page 442)

BACKGROUND

Three Decades of Clinical Experience

THE use of cow's milk, water and carbohydrate mixtures represents the one system of infant feeding that consistently, for three decades, has received universal pediatric recognition. No carbohydrate employed in this system of infant feeding enjoys so rich and enduring a background of authoritative clinical experience as Dextri-Maltose.

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**MICHIGAN'S DEPARTMENT
OF HEALTH**

DON W. GUDAKUNST, M.D., Commissioner
LANSING, MICHIGAN

SYPHILIS PROGRAM

In connection with the extensive syphilis control program now being sponsored by the Michigan Department of Health, Dr. Don W. Gudakunst, commissioner, has announced that an educational program with the colored physicians and lay groups of the state is now being conducted by Dr. Eugene S. Browning, staff physician.

Dr. Browning is consulting with physicians, enlisting their coöperation in the venereal disease program. He is also speaking before lay groups of colored people. Dr. Browning was formerly dermatologist to the Michigan Reformatory at Ionia, recommended by the Michigan State Medical Society. Requests for Dr. Browning's services may be addressed to the Michigan Department of Health at Lansing.

As an addition to its syphilis education materials, the Michigan Department of Health has published a Michigan edition of the popular folder, "Syphilis—Its Cause, Its Spread, Its Cure," issued by the U. S. Public Health Service. The folder is practicable for use with syphilis patients as well as for general educational purposes. Physicians and local organizations desiring to distribute this publication may obtain copies free upon request to the Michigan Department of Health.

A new social hygiene poster giving a fresh, wholesome approach to the modern social hygiene program is also available free upon request. Carrying the caption "The Youth of the Nation Are the Trustees of Posterity," the poster is suitable for posting in waiting room or health department offices.

**TO CHECK HEALTH OF IMPORTED
BEET FIELD WORKERS**

A coöperative plan for protecting the health of Michigan communities from contagious diseases among imported Mexican beet field workers has been announced by the Michigan Department of Health.

Medical examination of all such workers before they are brought here from Texas each year is proposed in plans approved by the Michigan sugar beet growers' associations and state health officials. Representatives of the four associations with a membership of 20,000 Michigan farmers, have agreed to pay half the expense of the health examinations. Approximately 10,000 Mexican beet field workers are imported into the state during each growing season. Diseases found among many of these laborers in the past have been a danger to the health of several Michigan communities. The outbreak of Shiga dysentery in Shiawassee County last summer was attributed to this source.

The State Health Department will provide the other half of the cost of the necessary examinations with the aid of funds allotted from the U. S. Public Health Service. The sugar beet growers have agreed to employ no worker who has not passed a physical examination showing that he is free from tuberculosis and syphilis in infectious stages. The medical examinations will be made in Texas before the workers are hired by the sugar beet growers association.

**PEDIATRICS COURSE FOR
UPPER PENINSULA**

A series of postgraduate lectures in pediatrics will be sponsored for physicians at four centers in the Upper Peninsula starting the week of May 1. The series will be given at Sault Ste. Marie, Houghton, Marquette, and Escanaba. Physicians may attend meetings at any of the centers. There is no fee.

Dr. M. Cooperstock, assistant professor of pediatrics and infectious diseases, University of Michigan, will open the series the week of May 1 with a lecture on "Rheumatic Infection in Children."

Dr. James L. Wilson, associate professor of pediatrics, Wayne University, will appear on the series the week of May 8 with a discussion of "Diseases of the Newborn."

The following week Dr. John L. Law, assistant professor of pediatrics and infectious diseases, University of Michigan, will lecture on "Communicable Diseases With Special Reference to Prophylactic Measures and Treatment."

Dr. Benjamin W. Carey will appear on the series the week of May 22 on the subject "Respiratory Infections With Particular Reference to Pneumonia. Discussion of Pyridine-Sulfanilamide." Dr. Carey is assistant professor of pediatrics at Wayne University.

The concluding lecture of the series the week of May 29 will be given by Dr. J. A. Johnston, pediatrician-in-chief, Henry Ford Hospital, Detroit, on the topic, "Nutrition in Infancy, in Health and Disease."

This course has been arranged through the coöperation of the Michigan State Medical Society, the University of Michigan, the Michigan Branch of the American Academy of Pediatrics, and the Michigan Department of Health.

COLLOIDAL GOLD TITRATIONS

The Bureau of Laboratories has announced that colloidal gold titrations of spinal fluid are now being run at all four of the Michigan Department of Health Laboratories located at Lansing, Grand Rapids, Houghton, and Powers.

GRAND TRAVERSE HEALTH DIRECTOR

The Board of Supervisors of Grand Traverse County has announced the appointment of Dr. J. K. Altland as director of the recently organized county health department. Dr. Altland was formerly associated with the W. K. Kellogg Foundation at the Allegan County Health Department.

NEW LABORATORIES REGISTERED

The Bureau of Laboratories has announced that the Mercy Hospital Laboratory at Cadillac and the Laboratory of the Michigan State Hospital for Epileptics at Wahjamega have been registered for making examinations in the serodiagnosis of syphilis under the Antenuptial Physical Examination Law, Act No. 207, P. A. 1937.

MARRIAGES IN 1938

A 37 per cent drop in marriages in Michigan in 1938 has been reported by the State Department of Health. There were 30,002 marriage licenses issued in 1938 compared with 47,954 in 1937. Although a good deal of this decrease has been attributed to the operation of the premarital medical examina-

tion law in Michigan, it was pointed out that economic conditions also had a very definite effect upon marriages last year. The marriage and divorce rate closely parallel any changes in economic conditions. Both marriages and divorces increase in good times and decrease in periods of economic stress. As a barometer of economic conditions in 1937 compared with 1938, divorces declined 15 per cent last year, while marriages too were dropping. There were 10,646 divorces granted in Michigan in 1938 compared with 12,472 the previous year.

The monthly distribution of marriage licenses issued in Michigan indicates that June is still the favorite month for altar-bound couples. March appears to be the least favorable. There were 4,079 marriage licenses issued in June last year compared with 1,352 in March.

CORRESPONDENCE

Resolution Adopted by the O.M.C.O.R.O. County Medical Society

WHEREAS, House Bill No. 215, State of Michigan Legislature of 1939-40 regular session, To provide for and to regulate the incorporation of a non-profit medical care corporation; to provide for the supervision and regulation of such corporation by the State Commissioner of Insurance; and to prescribe penalties for the violation of the provision of the act, and

WHEREAS, the enabling act to permit voluntary group medical care drafted by the M.S.M.S. Legislative Committee and approved by the Council, has been checked by the Michigan Insurance Department; and,

WHEREAS, the O.M.C.O.R.O. County Medical Society has made a study of the bill and being a component part of the Michigan State Medical Society favor the passage of the above legislation.

THEREFORE, BE IT RESOLVED that the O.M.C.O.R.O. County Medical Society go on record as favoring and endorsing the above legislation.

O.M.C.O.R.O. County Medical Society,
C. G. CLIPPERT, *Secretary*.

* * *

Trimountain, Michigan
April 13, 1939.

Dear Sirs:

At the April meeting of the Houghton-Baraga-Keweenaw County Medical Society, the assembled members unanimously voted the secretary to forward to the Executive Council of the Michigan State Medical Society, in writing, their wholehearted approval of the manner in which all the present medical problems are being treated.

We are behind The Council every inch of the way. The problems before the medical profession at the present time are not the problems of any one individual member or of The Council alone, but rather of all the ethical practitioners of medicine. You are our spokesmen, so lead on as in the past and we will try to do our individual small share here in our own communities.

Very truly yours,
Houghton-Baraga-Keweenaw County
Medical Society,

(Signed) P. S. SLOAN, M.D., *Secretary-Treasurer*.

MAY, 1939

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April 18, 1939

L. Fernald Foster, M.D., Secretary,
Michigan State Medical Society,
2020 Olds Tower,
Lansing, Michigan.

Dear Doctor Foster:

At the January meeting of the Saginaw County Medical Society a resolution was passed indorsing the action of the House of Delegates of the Michigan State Medical Society in their approval of the principles of Group Hospitalization and Group Medical Service.

It was also understood that The Council was empowered to proceed with the establishment of the plans embodied in the above principles.

Very truly yours,
Saginaw County Medical Society,
(Signed) DALE E. THOMAS, M.D., Secretary.

* * *

April 14, 1939.

L. Fernald Foster, M.D., Secretary, M.S.M.S.
2020 Olds Tower,
Lansing, Michigan.

Dear Doctor Foster:

At the monthly meeting of the Lapeer County Medical Society which was held on April 14, the following resolution was introduced:

"RESOLVED, That the Lapeer County Medical Society express its confidence in the ability of the officers, Council, and committees of the Michigan State Medical Society in their action on legislation, and particularly in the Medical Care Plan as adopted by the House of Delegates."

The motion was duly seconded and unanimously passed.

Yours very truly,
Lapeer County Medical Society,
(Signed) CARL C. JACKSON, Secretary.

* * *

March 16, 1939.

Mr. Wm. J. Burns, Executive Secretary,
Michigan State Medical Society,
2020 Olds Tower,
Lansing, Michigan.

Dear Mr. Burns:

Although it must be recognized that the services of dentistry ultimately must be included in any scheme aimed at solving the problem of extending health care, the Executive Council of the Michigan State Dental Society has decided that it will make no request to have dentistry specifically included in House Bill 215 at this session of the Legislature.

Very truly yours,
Michigan State Dental Society,
(Signed) J. ORTON GOODSSELL, President.

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KENT COUNTY AUXILIARY

(Continued from page 438)

deserves support. Members were urged to do what they can in favorably publicizing it. Other interesting topics touched upon included the manner of tracing bullets and the scientific determination of the degree of drunkenness.

Presiding at the tea table, which was attractively arranged with St. Patrick's decorations, were Mrs. Carl F. Snapp and Mrs. Joseph B. Whinery. Mrs. Murray M. Dewar and Mrs. M. J. Holdsworth were hostesses.

The next meeting, which will be the annual tea, will feature an exhibition of member's hobbies and will take place at the home of the chairman, Mrs. O. H. Gillett.

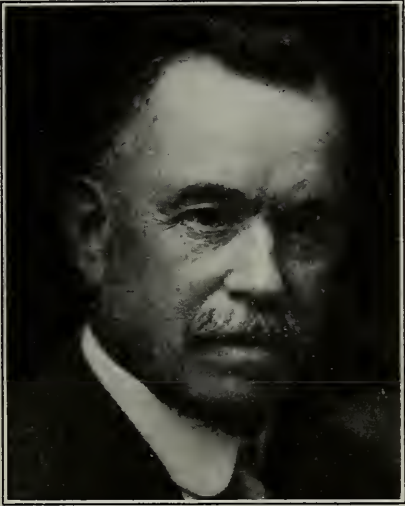
(Mrs. C. H.) JANE R. FRANTZ,
Press Chairman.

JOUR. M.S.M.S.

IN MEMORIAM

William H. Haughey, M.D.

Dr. William H. Haughey of Battle Creek died at his home on April 14, at the age of eighty-two. He was born in Kalamazoo on July 6, 1856, son of Luke R. and Mary (Talbot) Haughey. His parents came to the United States from Ireland.



DR. WILLIAM H. HAUGHEY

Dr. Haughey attended the public schools of Kalamazoo and from the age of nineteen he taught school for twelve consecutive winters, devoting the summers to farm work. He was married in 1879 to Miss Elizabeth Converse. During his teaching career, he decided to become a physician and read medical works during his spare time. He entered the Detroit College of Medicine in the Junior class and graduated in 1888. Following his graduation, he moved to Battle Creek where he had been in practice up to the time of his death. In 1895, Dr. Haughey performed an appendectomy at Battle Creek, the first to be performed there. He was a pioneer in pelvic and abdominal surgery and in 1896, he developed the so-called buried suture, which became universally used. Following his graduation from medical college, he became a member of the Calhoun County Medical Society, every office in which he held during his fifty years of membership. Dr. Haughey was made an honorary member of the Michigan State Medical Society in 1928. In 1926, the Calhoun County Medical Society was at such a low ebb that the members voted to disband. Owing to Dr. Haughey's efforts, however, interest in the county medical society was revived so that since that time Calhoun County Medical Society has become one of the most active county medical societies in the state. In appreciation of his long medical career as well as service to his society, a testimonial dinner by the county medical society was tendered him in 1938 when more than one hundred members and guests met to do him honor. Dr. Haughey took a keen interest in civic affairs but the only public office he ever held was that of health officer in 1903. During the last ten years of his life, he devoted much time to the St. Vincent de Paul Society which is a welfare organization.

He assisted in making preliminary surveys which resulted in the organization of the Community Chest. Dr. Haughey was greatly interested in the promotion of postgraduate courses for physicians. Early in his career he was a "horse and buggy" doctor, but with the advent of the automobile, he procured one of the first, and installed one of the first telephones in Battle Creek. To few doctors has it been the good fortune to have a long and useful career without any serious illness. He became ill in December last and made a satisfactory recovery only to be taken down with pneumonia two months ago. He rallied from this illness and continued his practice but suffered a relapse a month ago from which he did not recover. Throughout his long life, his interest in his profession continued unabated.

He is survived by his widow, four sons, Dr. Wilfrid Haughey, at one time secretary of the Michigan State Medical Society and editor of this JOURNAL, and at the present time councillor for the third district; Charles Haughey of Battle Creek, Louis Haughey of Dayton, Ohio, and J. Frank Haughey of Jackson; and a daughter, Mrs. Anna Callahan of Battle Creek. Two sisters also survive, namely Mrs. C. L. Yeo, and Mrs. Minnie Grace of Kalamazoo, and one brother, Charles Haughey of Grand Rapids. Dr. Haughey had fifteen grandchildren.

Angus McLean, M.D.

Dr. Angus McLean of Detroit died on April 11, after an illness of about seven weeks. He had attained his seventy-seventh birthday on the 4th of April. Dr. McLean was born in St. Clair County, Michigan. He afterwards moved to Ontario, where



DR. ANGUS McLEAN

he attended the Strathroy Collegiate Institute in 1880. He returned to Michigan and graduated from the Detroit College of Medicine in 1886. Following his graduation, he spent an internship of a year at Harper Hospital. In 1888, he entered practice with Dr. H. O. Walker, who was one of the outstanding surgeons of Detroit during this time and many years later. Following his association with Dr. Walker, Dr. McLean practiced with the late Dr. J.

IN MEMORIAM

B. Book. He pursued postgraduate work in surgery at the University of Edinburgh, Scotland, before entering practice independently. Dr. McLean was city physician of Detroit from 1888 to 1891. He was police surgeon from 1895 to 1901 and from 1905 to 1913 he was professor of Clinical Surgery at the Detroit College of Medicine. He served as a member of the State Board of Health from 1905 to 1911, when he was appointed to the Detroit Board of Health. He was a member of the Detroit Board of Health until the United States entered the war. Dr. McLean was attending surgeon to Harper, Providence and Children's Hospitals. He was elected member of the Detroit Board of Education in 1923, a position which he held until his death. He was president of the Board in 1935.

Any sketch of Dr. McLean would be incomplete were his notable war record omitted. He organized the Harper Hospital Unit known as Base Hospital Number 17, and was its commanding officer. The honors bestowed upon him for distinguished service were numerous. He was sent by the surgeon general of the U. S. Public Health Service as head of the medical commission to the Italian Armies. He received a citation by the Adjutant General of the U. S. Army in the A.E.F. By appointment, he was special surgeon to the Peace Commission in France, and was detailed by General Pershing to accompany President Wilson home in 1919. The same year he received the Diploma of Honor at Dijon, and was recommended for the Legion of Honor by the French Government. In 1921, he received the Distinguished Service Medal from Congress. In 1929, he was one of four delegates to the Fifth International Congress of Military Medicine at London by appointment of President Hoover. He was elected honorary professor of Military Surgery in

the University of Warsaw, whose medal he was awarded. Dr. McLean was a member of the Wayne County, Michigan State, and American Medical Associations, and a Fellow of the American College of Surgeons. He was president of the Wayne County and Michigan State Medical Societies in 1920. In 1921, he organized the Detroit Academy of Surgeons, and was its first president. The older members of the medical profession will remember the office of Dr. McLean which he held jointly with Dr. Don M. Campbell and Dr. Andrew P. Biddle on Fort Street. For the past twenty-five years, he had an office in the David Whitney Building.

He was, as will be seen, an outstanding citizen. A Democrat in politics, the fact that he found himself often in the opposition did not prevent him from rendering valuable services to his city and state. His profession was always nearest to his heart, and in earlier years his practice was very large. He was a keen diagnostician and a deft operator. In April of 1907, Dr. McLean married Rebecca Scotten, who survives him. He is also survived by two daughters, Miss Marion McLean and Mrs. Frank McKenzie, and also three sisters, Mrs. Belle Grindley, Mrs. Florence Reithard, and Mrs. Jessie Fuller. Dr. McLean was a member of the Detroit Athletic Club and the Army and Navy Club at Washington. He was a Mason, and the funeral services, which took place on April 13 from the Fort Street Presbyterian Church, were in charge of Detroit Commandery Number 1, Knights Templar.

Angus McLean: A Personal Tribute

In 1883 there enrolled in what was to become the Detroit College of Medicine (1885), and today is known as the Wayne University College of Medi-

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cine, two young men, the one drawn from the waters of the Great Lakes, the other from the United States Naval Academy, Annapolis, Maryland.

Whether or no these youthful sailors of the fresh and salt waters were attracted to each other because of their early seafaring training, I do not recall; nevertheless there was developed throughout their early student years a friendship which endured for more than half a century. Within this circle was later drawn the name of Dr. Don M. Campbell. Through fair and foul weather the flag of that friendship has flown at the masthead, never at half-mast. Though aid and sympathy were gladly extended, the obligations of friendship were never shunned. What the one desired, the other two must see that it was secured.

Dr. McLean served his internship in Harper Hospital (1886-1887), and within these walls that friendship was strengthened. As Senior Intern—there were only two of us then—I turned over all major surgery to him, for already there was blossoming that surgical genius which in later years was to make him known not only as a skillful operator, but a conservative surgeon. His subsequent association with Dr. H. O. Walker, and his service as City Physician and Police Surgeon, and as Professor of Clinical Surgery at the Detroit College of Medicine, added to these qualities of skill and judgment. The increasing demand for his services lay in the confidence which that judgment inspired.

Then came years of private practice in association with Dr. Campbell and myself, and then the Spanish-American War (1898). I write of this because it was here that his love of family was

strongly exhibited. His beloved younger brother, Dr. Allan McLean, was serving as my Hospital Steward in the 31st Michigan Volunteer Infantry. We were under orders to proceed to Cuba, and he had come to Chickamauga Park, Georgia, to bid Allan goodbye. Tears rolled down his cheeks as he felt in the conflict of war Allan might never return. Allan was subsequently commissioned in the Medical Corps, U. S. Navy, and served with distinction, and Angus was to organize Base Hospital No. 17 (Harper Hospital), and to serve as its commander. His work with the A.E.F. in France is history, and will not be reviewed here, except to write that its value was recognized by superior officers and by governments.

The walls of his apartment and of his office give mute testimony to the regard in which Great Britain, France, Italy, Poland held him. His services were recognized by Congress in the bestowal of the Distinguished Service Medal (1921), and by the Government by his appointment by the President as a U. S. delegate to the Fifth International Congress of Military Medicine at London, 1929, and to Poland for the meeting at the University of Warsaw of the Military College of Medicine and Pharmacy.

His own state and city recognized his service in his appointment as a member of the State Board of Health, his election as the first president of the Detroit Academy of Surgery, as president of the Wayne County Medical Society, as president of the Michigan State Medical Society, and his election and reelections to the Board of Education in the City of Detroit.

He was very fond of all these acknowledgments

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IN MEMORIAM

and decorations, not because he was proud, but because he dearly loved to be among the active, vibrating, living forces.

But what endeared himself to me was his unfailing kindness. He rejoiced when there was rejoicing; but in time of distress, when loss of all that is dear seemed to spell disaster, he was always there with words of encouragement, offers of help and performance.

Of Scottish ancestry and of Presbyterian faith, he fought hard for what he conceived was right. His strong executive ability was shown in the administration of the problems, which were many, which confronted him as a member of the Board of Education and as ex-officio member of the Detroit Library Commission. His work was marked by courage, faithfulness to his trusts, and good common sense. He was a skillful operator, a conservative surgeon, a priceless friend.

In these few words of reminiscence I wish to add my tribute to one upon whose friendship one could always rely, and to whom I am much indebted. Over fifty-six years of intimate friendship he never failed.

ANDREW P. BIDDLE.

C. D. Hart, M.D.

Dr. Clarence Dunbar Hart of Newberry, Michigan, who was elected last fall as councillor of the 12th district, died very suddenly on April 9, in Savannah, Georgia. Dr. Hart had resigned his position as district health officer at Newberry and had gone to Georgia, where he had accepted a similar position. He was born at Cambridge in 1895, and he was a graduate of Harvard with the degree of B.S., M.D., and C.P.H. At the time of his appointment as councillor of the Michigan State Medical Society, Dr. Hart was secretary of the Luce County

ment as councillor of the Michigan State Medical Society, Dr. Hart was secretary of the Luce County



DR. C. D. HART

Medical Society, and a member of the Public Relations Committee and Preventive Medicine Committee of the State Medical Society.

Orin H. Freeland, M.D.

Dr. Orin H. Freeland of Mason, Michigan, died March 25, 1939, at the age of sixty-nine years, after an illness of several weeks from heart disease.

Dr. Freeland was born in Ingham County on August 25, 1869. He graduated from the University of Michigan Medical School in 1897, and then joined the 31st Michigan Volunteer Infantry in the War with Spain. He began practice in Mason in 1899.

Dr. Freeland was a member of the Ingham County Medical Society, the Michigan State Medical Society, and the American Medical Association. He was also a member of the F. & A. M., a life member of the Knights of Pythias, and a member of the Kiwanis Club.

He is survived by the widow, one sister, and several nieces and nephews.

Jacob O. Lunn, M.D.

Dr. Jacob O. Lunn of Harbor Beach was found dead in his home from a self-inflicted shotgun wound, on April 9. Dr. Lunn was born in Beloit, Wisconsin, on September 28, 1885. In 1908 he was graduated from the University of Chicago, and for ten years he was house surgeon in St. Paul's Hospital, Manila, in the Philippine Islands. While in Manila, he married Miss Ethel Williamson of London, England, in 1916. Dr. Lunn was a member of the Harbor Beach Masonic Lodge, the I.O.O.F., and the Rotary Club, and also an elder in the Presbyterian Church and superintendent of the Sunday School. Dr. Lunn is survived by his wife, two daughters, Miss Margaret and Miss Ruth; also three brothers, Dr. Charles, of Malta, Illinois, John of Chicago, and Benjamin of Beloit, Wisconsin, and two sisters, Miss Margaret and Miss Julia of Beloit, Wisconsin.

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◆ General News and Announcements ◆

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Muskegon
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Other County Medical Societies are near the 100 per cent mark—being out of the honorary club by just one or two members not having paid 1939 dues. Help your society to be in the 100 Per Cent Club.

R. L. Carefoot, M.D., of Markdale, Ontario, was a visitor in the Executive Office on April 10.

* * *

Annual Fracture Day sponsored by the Flint Regional Fracture Committee and the Genesee County Medical Society was held in Flint on May 10. All types of fracture and bone injuries were discussed.

* * *

The courtesy of Mead Johnson and Company in relinquishing their position on the cover of the May JOURNAL so the special directory cover might be used is gratefully acknowledged.

* * *

W. C. Ellet, M.D., was elected Mayor of Benton Harbor at the April election. Doctor Ellet is the first physician to serve as Mayor of Benton Harbor since C. M. Ryno, M.D., served in the twenties.

* * *

The sympathy of the medical profession is extended to Dr. Walter Ford of Detroit, in the death of his wife last April, also to Dr. John Watts of Detroit whose wife died in April.

* * *

Henry A. Luce, M.D., Detroit, and Ralph H. Pino, M.D., Detroit, led the discussion on the presentation of Hospital and Health Service, at the Symposium held at Henry Ford Hospital, Detroit, on April 15, 1939.

* * *

Motor Boat Owners—Attention—With the opening of the navigation season, do you know the requirements of the Motor Boat Numbering Act of 1918 and the Equipment Act of 1910? Full information will be sent upon request by Martin R. Bradley, Collector of Customs, Detroit, Michigan.

* * *

Donald R. Brasie, M.D., Flint, was elected president of the Northern Tri-State Medical Association at the 66th Annual Meeting held in Chicago, April 11. Douglas Donald, M.D., Detroit, was named one of the five counsellors.

James D. Bruce, M.D., Ann Arbor, was chosen President-Elect of the American College of Physicians at the New Orleans meeting, March 27-31.

Henry R. Carstens, M.D., Detroit, was reelected as Governor for Michigan by the American College of Physicians. Congratulations!

* * *

John Rockwell Pedden, M.D., of Grand Rapids, was recently awarded the Edward and Susan Lowe Fellowship prize of \$500 for the purpose of aiding him in further education. The award is made annually to a member of the Butterworth Hospital staff, selected from nominations made by the Executive Committee of the Staff.

* * *

August 23 and 24 are the dates for the Annual Upper Peninsula Medical Society meeting. This year the meeting will be held in Escanaba. Several outstanding physicians are scheduled on the program. A visit to Escanaba on August 23 and 24 would combine a fine vacation in the North with an opportunity to hear such men as Henry Helmholtz, J. Arthur Myers, W. W. Bauer, John T. Murphy, Henry R. Carstens, and L. G. Christian. All members of the Michigan State Medical Society are invited.

* * *

Crippled and Afflicted Child Commitments for March, 1939, were as follows: Crippled Child: Total cases, 674, of which 192 were sent to University Hospital and 482 to miscellaneous hospitals. Of the above, Wayne County sent 6 to University Hospital, and 34 to miscellaneous hospitals, for a total of 40 cases.

Afflicted Child: Total cases, 1,665, of which 254 were sent to University Hospital, and 1,411 to miscellaneous hospitals. Of the above, Wayne County sent 44 to University Hospital and 299 to miscellaneous hospitals, for a total of 343.

* * *

Staff officials have been elected for the Mt. Carmel Mercy Hospital, Detroit, which opened for use last January. They are as follows: Chief of staff, Dr. Louis J. Garipey, Detroit; vice president, Dr. E. D. Margrave, Royal Oak; corresponding secretary and treasurer, Dr. Carl F. Ratigan, of Dearborn; chief of the medical department, Dr. Stanley W. Insley, Detroit; chief of the obstetrical department, Dr. A. K. Northrop, Detroit; chief surgeon, Dr. C. W. Husband, Detroit; chief in general practice, Dr. Arch Walls of Detroit; and general secretary, Dr. E. F. Ducey.

* * *

The American Association of Industrial Physicians and Surgeons will hold its 24th Annual Meeting with the American Conference on Occupational Diseases and Industrial Hygiene at the Hotel Statler, Cleveland, June 5, 6, 7, and 8, 1939. A program of timely interest and importance will be presented by speakers of outstanding experience in all of the medical and engineering problems involved in industrial health. A cordial invitation is extended to all whose interests bring them in contact with these problems. Write A. G. Park, Convention Manager, 540 N. Michigan Ave., Chicago, for full information, hotel reservations, etc.

* * *

The Wagner "Health" Bill (S. 1620) would eventually, if it becomes law, replace the private practitioner of medicine with physicians appointed on a political basis and placed on a salary. Nothing but

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GYNECOLOGY—Two Weeks' Course, June 5th and October 9th. Two Weeks' Personal Course, June 19th. Four Weeks' Personal Course, August 28th.

OBSTETRICS—Two Weeks' Intensive Course, June 19th and October 23rd. Informal Course every week.
FRACTURES & TRAUMATIC SURGERY—Ten-day Formal Course, June 19th and September 25th. Informal Course every week.

OTOLARYNGOLOGY—Two Weeks' Intensive Course starting September 11th. Informal Course every week.

OPHTHALMOLOGY—Two Weeks' Intensive Course starting September 25th. Informal Course every week.

CYSTOSCOPY—Ten-day Practical Course, rotary every two weeks.

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inferior and inadequate service would or could be given the sick. The Wagner Bill does not provide for compulsory health insurance, but it does provide for government subsidies, which means government control. Government control of medicine and all health agencies will expand rapidly until a complete system of state medicine is saddled on the back of the taxpayer and the medical profession.

Dr. E. H. Bewinski-Corwin, a life-long student of public health, writes, "The further apart public health administration is kept from curative medicine the better are their respective jobs done."

Inadequacy of milk, food, fuel, shelter and clothing are often more responsible for illness than a lack of medical care. If federal funds are to be used to eliminate illness, it is just as logical that the government supply free milk, food, fuel, shelter and clothing.

* * *

Upper Peninsula Secretaries turned out for their Conference held at Marquette on March 26, in great numbers, and brought many of their members along. The late Councilor C. D. Hart of Newberry addressed the group on "Organizational Activities Of the M.S.M.S." The main speaker of the Conference was L. Fernald Foster, M.D., of Bay City, M.S.M.S. Secretary, who spoke on "Socio-Economic Responsibility of the Physician." Executive Secretary Wm. J. Burns discussed current legislation before the Michigan Legislature and the United States Congress. Among those present were Drs. R. J. McClure, Calumet; T. W. Benson, Escanaba; W. C. Lambert, Marquette; H. P. Blake, Marquette; Joseph P. Bertucci, Ishpeming; Gail R. Broberg, Newberry; O. J. Niemi, Marquette; M. Cooperstock, Marquette; Arthur K. Bennett, Marquette; W. B. Chesley, Marquette; C. A. Cooper, Houghton; E. J. Brenner, Manistique; A. R. Tucker, Manistique; R. E. Pleune, Houghton; P. S. Sloan, Houghton; A. R. Peterson, Daggett; Wm. Fiedling, Norway; D. R. Smith, Iron Mountain; R. E. Hayes, Sagola; S. C. Mason, Menominee; E. R. Elzinga, Marquette; W. J. Schutz, Munising; C. W. Baum, Marquette; W. L. Casler, Marquette; John T. Kaye, Menominee; T. P. Wickliffe, Houghton; E. J. Evans, Ontonagon; A. L. Swinton, Marquette; Jacob Talso, Ishpeming; F. J. DeWane, Menominee; A. C. Bachus, Escanaba; Jack Defnet, Escanaba; N. J. Frenn, Bark River; C. C. Corkill, Menominee; N. J. McCann, Marquette; W. S. Jones, Menominee; D. P. Hornbogen, Marquette; R. Grant Janes, Marquette; A. H. Miller, Gladstone; V. H. Vandeventer, Ishpeming; Miles J. Gullickson, Negaunee; R. Lanting, Escanaba.

* * *

Physicians who have addressed county medical societies and lay groups during the past month include:

J. Milton Robb, M.D., Detroit, past-president of the M.S.M.S., spoke to the Detroit Economic Club on March 20, on the subject "Shall We Pay to Keep Well?"

George Hammond, M.D., Ann Arbor, addressed the Hillsdale County Medical Society on the subject of "Use of the Smith-Peterson Nail for Fractures of the Hip" at its meeting of March 30.

Harold A. Miller, M.D., Lansing, discussed "Michigan's Group Medical Care Program" before the Optimist Club of Lansing on April 3rd.

Max Peet, M.D., Ann Arbor, addressed the Calhoun County Medical Society on April 4, on the subject of "Surgical Treatment of Hypertension" with lantern slide illustrations.

Plinn F. Morse, M.D., Detroit, spoke to the Oakland County Medical Society on April 5, discussing the subject "Lesions of the Gastro-Intestinal Tract." Formal Discussion was led by C. G. Darling, M.D., of Pontiac.

K. L. Olmsted, M.D., Coldwater, gave an address on Cancer before a local lay group on April 6.

"What is the Value of Roentgen Therapy in the Treatment of Tumors of the Kidney, Bladder, Prostate, and Testicle?" was the subject under discussion by Albert E. Bothe, M.D., of Philadelphia, at the meeting of the Kent County Medical Society on April 12.

Fenimore E. Davis, M.D., Ann Arbor, spoke to the Kalamazoo County Medical Society at its meeting of April 18, on the subject of "New Anesthetic Agents."

Frederic Schreiber, M.D., Detroit, discussed "Brain Injuries as a Result of Asphyxia at Birth" before the Shiawassee County Medical Society on April 20.

Henry A. Luce, M.D., Detroit, addressed a public meeting in Monroe on April 27, on the subject of "Group Medical Care Plan of Michigan."

* * *

American Congress on Obstetrics

The first American Congress on Obstetrics and Gynecology is to be held in Cleveland, Ohio, from September 11 to 15, 1939. This important meeting comes at a crucial time in American Medicine. The problems associated with human reproduction have become of paramount importance, arousing the intense interest of the public and the profession. The meeting will provide the first opportunity for all the interested groups of workers to assemble together. Doctors, nurses, hospital administrators and public health workers will meet and discuss their mutual problems and correlate their many ideas. A large and representative attendance is necessary to assure the success of this meeting. Already more than 1,400 advance registrations have been received.

Michigan Society for Group Hospitalization

At the time of writing, there are fifty-nine hospitals participating in the Group Hospital Insurance Plan. This includes all non-profit hospitals of Detroit, Ann Arbor, Saginaw, Lansing, Flint, Kalamazoo, Bay City and Petoskey. The plan has been presented in Detroit for three weeks preceding April 12. The employees of forty-two organizations, or a total of over 3,500 subscribers, are protected under group hospitalization contract. The first office of the society is located on Washington Boulevard, Detroit. The second office was opened at Flint on the 12th of April. Within the next few months, offices will be opened in sixteen other cities in Michigan. Participating hospitals to date are as follows:

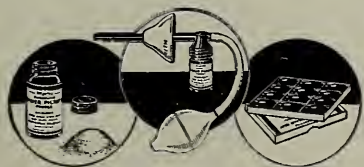
Participating Hospitals

Alma—R. B. Smith Memorial Hospital.
Ann Arbor—St. Joseph's Mercy Hospital, University Hospital.
Battle Creek—Leila Y. Post Montgomery Hospital.
Bay City—Mercy Hospital.
Detroit—Alexander Blain Hospital, Charles Godwin Jennings Hospital, Children's Hospital, Delray General Hospital, East Side General Hospital, Edyth K. Thomas Memorial Hospital, Evangelical Deaconess Hospital, Florence Crittenton Hospital, Grace Hospital, Harper Hospital, Henry Ford Hospital, Mount Carmel Mercy Hospital, Parkside Hospital, Providence Hospital, Receiving Hospital, Receiving Hospital (Redford Branch), St. Mary's Hospital, St. Joseph's Mercy Hospital, Trinity Hospital, Woman's Hospital.
Dowagiac—Lee Memorial Hospital.
Eloise—Eloise Hospital and Infirmary.
Flint—Hurley Hospital, St. Joseph's Hospital, Women's Hospital.
Goodrich—Goodrich General Hospital.
Grayling—Grayling Mercy Hospital.
Hamtramck—St. Francis Hospital.
Hancock—St. Joseph's Hospital.
Hart—Oceana Hospital.
Highland Park—Highland Park General Hospital.
Howell—McPherson Memorial Hospital.
Ironwood—Grand View Hospital.
Jackson—Mercy Hospital.

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Kalamazoo—Borgess Hospital, Bronson Methodist Hospital.
Lansing—Edward W. Sparrow Hospital, St. Lawrence Hospital.
Ludington—Pauline Stearns Hospital.
Manistee—Mercy Hospital and Sanitarium.
Marquette—St. Luke's Hospital.
Monroe—Monroe Hospital.
Potoskey—Lockwood General Hospital, Little Traverse Hospital, Petoskey Hospital.
Pontiac—Pontiac General Hospital, St. Joseph's Mercy Hospital.
Saginaw—Saginaw General Hospital, St. Luke's Hospital, St. Mary's Hospital.
St. Joseph—St. Joseph Sanitarium.
Sault Ste. Marie—Chippewa County War Memorial Hospital.
Wyandotte—Wyandotte General Hospital.
Ypsilanti—Beyer Memorial Hospital.

Registration at MSMS Convention Tuesday, Sept. 20, 1938

Drs. A. T. Laberge, Detroit; J. M. LaBerge, Wyandotte; A. D. LaFerte, Detroit; Norman O. LaMarche, Detroit; E. T. Lamb, Alma; W. D. Lane, Romeo; L. W. Lang, Detroit; Anthony Lange, Detroit; Bror Hjalmar Larsson, Detroit; C. P. Lathrop, Hastings; E. H. Lass, Oxford; Edward H. Lauppe, Detroit; V. S. Laurin, Muskegon; John W. Lawson, Detroit; E. O. Leahy, Jackson; F. W. Lee, Fairview; H. E. Lee, Detroit; F. S. Leeder, Coldwater; Louis S. Leipsitz, Detroit; D. J. Leithauser, Detroit; W. R. Lenz, Detroit; Louis S. Leo, Houghton; Sydney S. Levine, Detroit; Marvin B. Levy, Detroit; J. Hugh Lewis, Wyandotte; M. L. Lichter, Detroit; Harry Liefers, Grand Rapids; R. W. Lignell, Detroit; Stewart Lofdahl, Nashville; G. W. Logan, Flushing; Oliver W. Lohr, Saginaw; Maurice C. Loree, Lansing; Edgar C. Long, Monroe; Clifford Loranger, Detroit; Earl F. Lutz, Detroit.
Drs. Gordon S. McAlpine, Detroit; Stewart C. McArthur, Mt. Pleasant; Fred W. McAfee, Detroit; Lyman M. McBryde, Sault Ste. Marie; John J. McCann, Ionia; Roy D. McClure, Detroit; Clarke M. McColl, Detroit; J. P. McGonkie, Birmingham; Colin C. McCormick, Dearborn; Lester E. McCullough, Detroit; Thos. H. McEachern, Ann Arbor; N. K. McElmurry, Perry; J. A. McGavah, Detroit; E. G. McGavran, Hillsdale; R. W. McGeoch, Monroe; D. H. McGinnis, Detroit; J. A. McLandress, Saginaw; Rush McNair, Kalamazoo; Howard H. McNeill, Pontiac;

P. F. McQuiggan, Detroit; M. R. McQuiggan, Detroit; Donald H. McRae, Detroit.
Drs. Frances L. MacCraken, Detroit; R. Bruce Macduff, Flint; L. D. MacRae, Gagetown; Clarence E. Maguire, Detroit; Harold U. Mair, Detroit; Edward D. Maire, Grosse Pointe; Vincent S. Mancuso, Detroit; Carleton J. Marinus, Detroit; Morris H. Marks, Detroit; R. M. Martin, Detroit; W. H. Martin, Detroit; Pedro O. Martinez, Detroit; Edgar Martmer, Detroit; Thos. B. Marwil, Detroit; Robt. J. Mason, Detroit; Don R. Mathieson, Detroit; Earl W. May, Detroit; Frederick J. May, Jr., Detroit; Willard D. Mayer, Detroit; J. B. Meads, Jackson; Stuart F. Meek, Detroit; Marvin B. Meengs, Muskegon Hts.; Hyman S. Mellen, Detroit; Frank R. Menagh, Detroit; R. J. Mendelssohn, Detroit; Lionel N. Merrill, Detroit; Harry C. Metzger, Detroit; Maurice Meyers, Detroit; Ernest B. Miller, Manistee; Hazen L. Miller, Detroit; Phillip L. Miller, Muskegon; Clinton C. Mills, Detroit; Frederick B. Miner, Flint; Carl A. Mitchell, Benton Harbor; Gertrude F. Mitchell, Detroit; Robert C. Moehlig, Detroit; Clarence D. Moll, Detroit; Edward Mond, Detroit; C. A. Mooney, Ferndale; G. F. Moore, Mt. Clemens; Gregory Moore, Cadillac; Fred N. Morford, Muskegon; Donald M. Morrill, Detroit; K. M. Morris, Saginaw; R. S. Morrish, Flint; D. B. Morrison, Tekonsha; John B. Morton, Detroit; Max M. Mosen, Detroit; Hugh Mullenmeister, Battle Creek; Frederick Wm. Munro, Grosse Pointe; C. D. Munro, Jackson; John Murphy, Detroit; Scipio G. Murphy, Detroit; Gordon B. Myers, Detroit.
Drs. Harry M. Nelson, Detroit; A. W. Nelson, Battle Creek; J. H. Nicholson, Hart; Victor E. Nelson, Detroit; Wilfred S. Nolting, Detroit; A. Noordevier, Grand Rapids; P. B. Northouse, Grandville.
Drs. Constantine Oden, Muskegon; Ira D. Odle, Flint; Dayton H. O'Donnell, Detroit; W. S. O'Donnell, Detroit; A. B. Olsen, Battle Creek; Milton Oppenheim, Detroit; Leo Orecklin, Detroit; J. Walter Orr, Flint; F. W. Ostrander, Freeland; John P. Ottaway, Detroit; Clarence I. Owen, Detroit.
Drs. L. E. Pangburn, Detroit; Edward J. Panzner, Detroit; H. G. Palmer, St. Petersburg, Fla.; Bernard Patmos, Adrian; P. W. Patterson, Grand Rapids; Matthew Peelen, Kalamazoo; H. E. Perry, Newberry; W. L. Peters, Morenci; Fred W. Phillips, Detroit; Harrison M. Pierce, Colon; Merle Pierson, Detroit; Lyman J. Pinney, Detroit; R. C. Pochert, Owosso; J. J. Pollack, Detroit; H. M. Pollard, Ann Arbor; Frank A. Poole, Saginaw; Edgar E. Poos, Detroit; F. S. Porreta, Detroit; Ross J. Porritt, Pontiac; Horace Wray Porter, Jackson; Enos A. Potts, Detroit; Lunette I. Powers, Muskegon; Harry J. Prall, Lan-

GENERAL NEWS AND ANNOUNCEMENTS

sing; Lawrence A. Pratt, Detroit; A. H. Price, Detroit; Stuart Pritchard, Battle Creek.

Drs. Phil H. Quick, Olivet; William Quigley, Detroit.
Drs. Ivor E. Reed, Detroit; J. J. Reichman, Mt. Clemens; Albert H. Reisig, Monroe; E. J. Rennell, Traverse City; Leo P. Rennell, Detroit; Harold B. Rice, Detroit; John Wesley Rice, Sturgis; M. Rice, Detroit; Allan L. Richardson, Detroit; Robt. P. Richardson, Eloise; J. R. Ridlon, Detroit; J. W. Rigerink, Grand Rapids; A. J. Roberts, Jackson; Floyd A. Roberts, Flint; Hugh B. Robins, Marshall; James R. Rogin, Detroit; Robert Rosenberg, Saginaw; Herman G. Rosenblum, Flint; M. V. Rosenthal, Detroit; C. Howard Ross, Ann Arbor; Paul Roth, Battle Creek; Theodore I. Roth, Detroit; Harold B. Rothbart, Detroit; Emil D. Rothman, Detroit; Michael S. Rowda, Detroit; Walter Z. Rundles, Flint; V. P. Russell, Royal Oak; Richard S. Ryan, Saginaw; Frank L. Ryerson, Detroit.

Drs. Edward L. Sager, Detroit; John T. Sample, Saginaw; Alexander W. Sanders, Detroit; Susanne M. Sanderson, Detroit; Nathaniel Sandler, Detroit; Philip P. Sayre, South Haven; Waldo A. Schaefer, Port Huron; I. S. Schembeck, Detroit; C. W. Schepeler, Brooklyn; Arthur E. Schiller, Detroit; G. Schinagel, Detroit; N. H. Schlafer, Detroit; Harry E. Schmidt, Detroit; T. E. Schmidt, Jackson; E. W. Schnoor, Grand Rapids; C. H. Schulte, Detroit; Ernest Schultz, Detroit; Sam Schultz, Coldwater; C. F. Schweigert, Detroit; J. W. Scott, Detroit; Foster D. Scruton, Detroit; Ward F. Seeley, Detroit; C. D. Selby, Detroit; Lowell S. Selling, Detroit; L. G. Sevens, Charlotte; George Sewell, Detroit; W. E. Shackleton, Kalamazoo; G. O. Shantz, Flint; Ara D. Sharp, Albion; Chas. H. Sharrer, Detroit; Milton Shaw, Lansing; H. Shilkovsky, Detroit; Burt R. Shurley, Detroit; I. Sicotte, Michigamme; Roger S. Siddall, Detroit; H. Lee Simpson, Detroit; Robert Simpson, Battle Creek; Geo. W. Sippola, Detroit; Edward J. Skully, Detroit; Walter K. Slack, Saginaw; Frank J. Sladen, Detroit; P. Earle Smith, Grand Rapids; Lillian R. Smith, Lansing; Richard R. Smith, Grand Rapids; E. M. Smith, Grand Rapids; Ferris Smith, Grand Rapids; Charles J. Socall, Detroit; E. M. Sorock, Detroit; Loren C. Spademan, Detroit; R. W. Spalding, Gobles; Frederick L. Sperry, Detroit; U. G. Spohn, Fairgrove; Benj. R. Springborn, Detroit; H. J. St. Amour, Detroit; John C. Stageman, Detroit; Ernest L. Stefani, Detroit; W. H. Steffensen, Grand Rapids; James R. Stein, Detroit; Eugene J. Steinberger, Detroit; Milton J. Steinhardt, Detroit; Max Steiner, Detroit; Chester E. Stelhorn, Detroit; Duncan C. Stephens, Howell; Robt. A. Stephenson, Flint; Wm. W. Stevenson, Flint;

Chas. E. Stewart, Battle Creek; Benj. W. Stockwell, Detroit; Lindley H. Stout, Detroit; P. C. Strauss, Lansing; Henry D. Stricker, Detroit; Fred L. Strickrodt, Detroit; A. W. Strom, Hillsdale; C. K. Stroup, Flint; Howard T. Stuch, Allegan; O. H. Stuck, Otsego; George C. Stucky, Charlotte; Fred A. Sturm, St. Clair Shores; John Sundwall, Ann Arbor; John P. Surbis, Detroit; H. C. Swenson, Grand Rapids; E. R. Swift, Lakeview.

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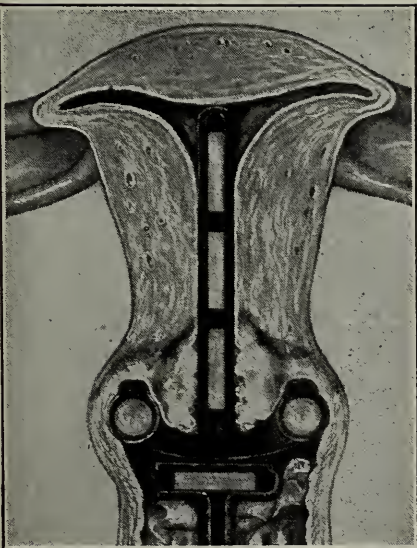
Drs. Henry L. Ulbrich, Detroit; E. Gifford Upjohn, Kalamazoo; William K. Usher, Detroit.

Drs. T. P. Vander Zalm, Lansing; J. Van Loo, Belding; Alfred E. Vannest, Detroit; V. O. Vasu, Detroit; A. E. Voegelin, Detroit; Otto Von Renner, Vassar; Frank A. Votey, Grand Rapids.

Drs. Joseph E. G. Waddington, Detroit; Joseph A. Wall, Detroit; Arch Walls, Detroit; F. R. Walters, Battle Creek; J. F. Waltz, Capac; Wm. G. Wander, Detroit; Henry C. Wass, Port Huron; Ernest H. Watson, Detroit; Frederick B. Watts, Detroit; John H. Wax, Detroit; Leonard L. Weil, Benton Harbor; Jacob Weinstein, Detroit; Carl S. Wencke, Battle Creek; Jacob S. Wendel, Detroit; John N. Wenger, Cooperville; Jacob F. Wenzel, Detroit; Morris D. Wertenberger, Jackson; H. O. Westervelt, Benton Harbor; Russell F. Weyher, Detroit; Neil J. Whalen, Detroit; Robert K. Whiteley, Detroit; Elmer L. Whitney, Detroit; Alfred H. Whittaker, Detroit; John W. Wholihan, Michigan Centre; A. B. Wickham, Detroit; Israel Wiener, Detroit; M. M. Wilde, Warren; Thomas Wilensky, Eaton Rapids; Arthur P. Wilkinson, Detroit; Mildred C. Williams, Detroit; R. J. Williams, Monroe; J. D. Wilson, Detroit; Norman D. Wilson, Jackson; Stuart Wilson, Detroit; Walter J. Wilson, Jr., Detroit; James M. Winfield, Detroit; Carlton W. Winsor, Detroit; Frank C. Witter, Detroit; Kenneth P. Wolfe, Alma; Victor Hugo Wolfson, Mt. Clemens; Robert A. C. Wollenberg, Detroit; A. R. Woodburne, Grand Rapids; W. B. Woods, Detroit; W. E. Woods, Detroit; Walter J. Wright, Ypsilanti; Thelma M. Wygant, Detroit.

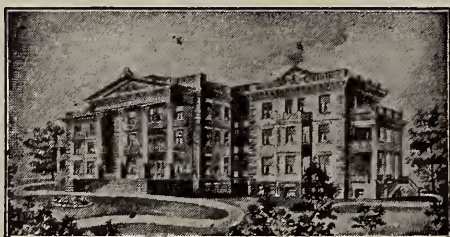
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Dr. Arthur A. Wittenberg, Detroit.

The above list represents the balance of the registration of Tuesday, September 20, 1938. The registration of Wednesday and Thursday will be published in succeeding issues of THE JOURNAL.

THE 70TH ANNIVERSARY OF THE MEDICAL DEPARTMENT OF WAYNE UNIVERSITY

(The Detroit College of Medicine)

The year 1939 marks the 70th Anniversary of the Detroit College of Medicine, now the Medical Department of Wayne University. It also marks the Golden Jubilee of the Alumni Association and the fortieth year of the Alumni Clinic week.

The Detroit College of Medicine was the outgrowth of the Detroit Preparatory School of Medicine which was started in 1868 in the Army Hospital located near the present site of Harper Hospital. The regular term was eighteen weeks. Clinical instruction was given at St. Mary's Hospital, Harper Hospital, and the College Dispensary. In June, 1879, the Michigan College of Medicine was organized and in 1885 it was amalgamated with the Detroit College of Medicine. In 1889 a new college building was erected on the northeast corner of St. Antoine and Mullett Streets. The Building was destroyed by fire in 1896 but the building was at once rebuilt and was soon ready for use. This in short is the early history of the college. Nothing is said here of the work and devotion of the men who made the success of the school possible. It had like all the proprietary schools many vicissitudes which we will not take the time to recount.

Suffice to say that the loyal supporters of the school were on the job. However, the college became more and more costly to operate. In 1910 a new corporation took over and carried on until 1917 when the college was taken over by the Board of Education thus becoming the oldest division of Wayne University.

New and modern laboratories were constructed and full-time men were engaged and paid to teach the basic sciences—anatomy, physiology, chemistry, histology, pathology and pharmacology. Since that time the course of the College has been onward and upward.

This year the status of the College as a Class A institution was continued by the Council on Medical Education of the American Medical Association. Dean Allen reported that Dr. William D. Cutter, Secretary of the Council, said, "Wayne University has made more progress in recent years than any other medical college in the country." Doctor Cutter also spoke of the excellent clinical facilities which Detroit hospitals offer medical students, and of the use made of their facilities.

Visitors to the Alumni Clinic week will have an opportunity to view the work of the College. The program is being sent to all the Alumni and plans are being made for an excellent review of the new in medicine. All medical men are cordially invited to attend the Clinics on June 13, 14 and 15.

PROGRAM FOR WAYNE UNIVERSITY ALUMNI CLINICS

WEDNESDAY, JUNE 14

Morning (Receiving Hospital)

9:00- 9:15—Registration and assignment to first section of ward rounds.

9:15-10:30—First section of ward rounds.

10:30-10:45—Intermission with assignment to second section of ward rounds.

10:45-12:00—Second section of ward rounds. The ward rounds will be conducted in groups of four or eight. Bedside diagnosis and treatment will be emphasized. Each physician will have the opportunity to examine every patient presented. The following subjects will be taken up:
 Cardiology—Drs. Donald and Novy
 Nephritis and Hypertension—Drs. Spalding and Schneck
 Diabetes—Drs. R. M. McKean and Perkin
 Respiratory Diseases—Drs. Lemmon and A. E. Price
 Gastro-intestinal Diseases—Drs. Mayer and S. G. Meyers
 Blood Diseases—Drs. A. H. Price and VonderHeide
 General Surgery—Drs. Johnston and Hartzell
 General Surgery—Drs. Vale and Bovill
 Fractures—Drs. Laferte and Winfield
 Gynecology—Drs. Seeley and Cushman
 Urology—Drs. Keane and Plagge-meyer
 Eye, Ear, Nose and Throat—Drs. Robb and Heath

Each alumnus will be able to participate in two out of the twelve ward rounds. All those who are planning to attend are requested to send in their preferences by June 1.

12:00 noon—Luncheon at Receiving Hospital

Afternoon (College of Medicine)

2:00 p. m.—Department of Pathology
 Demonstration of gross pathological material
 Department of Pharmacology and Medicine
 Exhibits illustrating therapeutic uses of sulfanilamide, sulfapyridine, and certain of the recent cinchona derivatives
 Department of Bacteriology
 Demonstration of technic of:
 Urinalysis
 Blood count with smears illustrating various blood diseases
 Sputum examinations, et cetera
 Basal metabolism rate
 Department of Anatomy
 Exhibits illustrating mode of action and clinical application of the sex hormones.
 Department of Chemistry
 Exhibits and animal experiments illustrating clinical applications of Vitamins B₁, C, D, and nicotinic acid.
 Department of Surgery
 Film on "Treatment of Intestinal Obstruction"
 Department of Physiology
 Demonstration of the following subjects:
 1. Hormonal Control of Water Diuresis—Dr. Haterius
 2. The Nervous and Humoral Control of Gastric Secretion—Dr. Friedman
 3. The Control of Gastric Motility—Dr. Patterson
 4. Comparative Studies and Psychophysiology—Dr. Scantlebury
 Department of Roentgenology
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Evening (Class Reunion Dinners)

THURSDAY, JUNE 15

9:00-12:00—College Auditorium

SYMPOSIUM ON OBSTRUCTIVE JAUNDICE

1. Anatomy and Physiology—Dr. Johnston
2. Diagnosis—Dr. Weiser
3. Rôle of Vitamin K.—Dr. Smith
4. Pre- and Postoperative treatment—Dr. Winfield

SYMPOSIUM ON PNEUMONIA Bacteriology

1. Laboratory Aids in Diagnosis and Prognosis—Dr. Hasley
2. Significance of Sputum Studies in the Prognosis of Pneumonia—Dr. Frisch
3. General Measures and Serum—Dr. A. E. Price
4. Chemotherapy—Dr. Myers

SYMPOSIUM ON GENERAL ANOXIA

1. Etiology and Clinical Manifestations—Dr. Schrieber
2. Pathology—Dr. Hartman
3. Rôle of Sedatives, Narcotics and Anesthetics in Cerebral Anoxia—Dr. Murphy
4. Clinical Applications—Dr. Ledwidge

12:00 noon—Annual Meeting

1:00 p. m.—Complimentary Luncheon (College of Medicine)

2:00 p. m.—Boat Ride

7:00 p. m.—Student, Faculty, Alumni Dinner

FRIDAY, JUNE 16

10:00 a. m.—Commencement Exercises.

Michigan Pathological Society

The regular meeting of the Michigan Pathological Society was held at the William Seymour Hospital, Eloise, Michigan, April 15, 1939. It was a joint meeting with the Detroit branch of the American Urological Association, and was well attended by both urologists and pathologists, a total of about seventy being present. The afternoon was spent in exhibits and study of displayed material in the laboratory of the hospital. Dinner was served at six o'clock, following which an excellent scientific program consisting of twenty-four papers was presented in the staff conference room of the hospital. Dr. O. W. Lohr, president, presided.

* * *

Correction

Dr. R. H. Freyberg, Assistant Professor of Medicine at the University of Michigan, in charge of the Rackham Arthritis Research Unit, sends the following note. We regret the error and are pleased to publish the correction. "I would request that you publish a note in the coming issue of the Michigan State Medical JOURNAL to correct an error in the discussion by me in the staff conference of the Department of Internal Medicine, University Hospital, Ann Arbor, which was published in the April 1939 issue of the Michigan State Medical JOURNAL. In the last paragraph, on page 330, there is a statement which reads: 'He recommended doses up to 0.15 grams per pound of body weight every twenty-four hours.' This should read: 'He recommended doses up to 0.045 grams per pound of body weight every twenty-four hours.'"

THE DOCTOR'S LIBRARY

Acknowledgment of all books received will be made in this column and this will be deemed by us a full compensation to those sending them. A selection will be made for review, as expedient.

SURGICAL PATHOLOGY OF THE DISEASES OF THE MOUTH AND JAWS. By Arthur E. Hertzler, M.D., Surgeon to the Agnes Hertzler Memorial Hospital, Halstead, Kansas, Professor of Surgery, University of Kansas. 206 illustrations. Philadelphia, Montreal and London: J. B. Lippincott Company, 1938.

The author will be recognized at once as the author of "The Horse and Buggy Doctor," a book that has been one of the best sellers during the past year. This is the last of Dr. Hertzler's monographs on surgical pathology. The doctor has so declared it, for he says that after thirty-five years of writing, he is going to trade his pen for a lollipop. He takes occasion to pay tribute to his secretary, who has the uncanny faculty of reading his wiggly notes and keeping things together. He believes that if she saw a spirochæte under the microscope, she could type off a rounded sentence, without a moment's hesitation. And Jim, the incomparable Jim Barlow. Jim makes the photographs which go to illustrate the doctor's books. Without him, there could not have been any books. So much for the preface.

Dr. Hertzler feels that since the rise of specialism, dentistry and otolaryngology, much of the work comprising the subject of his book has gotten away from him. Judging, however, from the gross specimens and the descriptions in his monograph, the specialist has not corralled everything. Hertzler's book has the merits of a monograph. It is personal, it is based upon the experience of a single author who confesses that he has not even read the literature cited at the end of his chapters. However, we are going to discount this last statement. The book is written in a simple direct style which should have a wide appeal.

POPULATION, RACE AND EUGENICS. By Morris Siegel, M.D. Published by the Author, 546 Barton St. East, Hamilton, Ontario, 1939.

The work as implied in the title treats of population and eugenics. There is a chapter on etiology, in which the author discusses the causes of large families and small families. These causes are chiefly

economic and social. The large family, he says, is apt to be found in rural districts and small families in the cities. The cultured have a disposition to limit the size rather than bring up a family under adverse conditions. Then again, birth control knowledge is more easily obtainable in cities than in the country. The late marriage is another cause for small families. People who prepare for professions or endeavor to get in an established position, usually marry late in life. Other chapters are on Constructive Recommendations, Racial Theories in Relation to Eugenics and Rational Marriage. This comprises the first book. The author also takes up the pathologic phase of population and writes on feeble-minded, mental disorders, epilepsy, restrictive measures, and then ends with general conclusions. The work is easily understood by non-medical readers.

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THE PRINCIPLES AND PRACTICE OF OPHTHALMIC SURGERY. By Edmund B. Spaeth, M.D., Associate Professor of Ophthalmology in the Graduate School of Medicine of the University of Pennsylvania. Illustrated with 413 engravings, containing 1031 figures and 4 colored plates. Philadelphia: Lea & Febiger, 1939.

As implied in the title, this work deals with surgical treatment of ocular diseases. The vast field of medical treatment is not included. The author makes himself clear in his assertion that the surgeon cannot be trained from textbooks. The surgical school is the operating room and dissecting room. However, the dissecting room and the operating room would be very inefficient were it not for the accumulated experiences as found in books. As a means of presentation of accumulated experiences in the matter of ophthalmic surgery, Dr. Spaeth's book is a success and the reviewer bespeaks for it a hearty welcome among ophthalmologists.

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* * *

Dr. R. G. Leland is Director of the Bureau of Medical Economics of the American Medical Association. He graduated from the University of Michigan in 1907 with the degree of Bachelor of Arts, and in 1909 with the degree of Doctor of Medicine. Following graduation, he practiced in southwestern Michigan for eight years, devoting a considerable part of his time to public health administration. He served for twenty-six months in the Medical Corps of the Army of the United States during the World War. Soon after his discharge from the military service, Dr. Leland served as a member of the staff of the Ohio Department of Health, during most of which time he was Chief of the Division of Hygiene. On leaving the Ohio Department of Health, he became Executive Secretary of the Toledo Public Health Association. It was while serving as Director of the Toledo Public Health Association that Dr. Leland was invited to join the staff of the American Medical Association. He was Assistant Director, Bureau of Health and Public Instruction of the American Medical Association, from 1927 to 1930, and when the Bureau of Medical Economics was organized in 1931, he became its Director. He is the author of "The Costs of Medical Education, Student's Expenditures," "Income From Medical Practice," "Contract Practice," "The Distribution of Physicians in the United States," and co-author with A. M. Simons of "Medical Relations Under Workmen's Compensation," "The Care of the Indigent Sick," "Group Practice," "Rural Medical Services," and many other publications pertaining to medical economics.

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RUDOLF VIRCHOW

ROBERT C. MOEHLIG, M.D.

DETROIT, MICHIGAN

The criticism so frequently made that an individual may be too contemporary to judge his influence upon a particular sphere of endeavor does not hold in the case of Rudolph Virchow. His contributions are so valuable that their effect will be felt for a period of time which can not be estimated. His name is inseparably linked with cellular pathology, of which he was the founder.

Our modern pathology properly begins with the classic work published in 1858 by Virchow entitled "Die Cellularpathologie in ihrer Begründung auf Physiologischen und Pathologische Gewebelehre."

Born in a small town, Schievelbein, in Pomerania, Germany, in 1821, and, as the writers are accustomed to say, "of humble parentage." In his youth and throughout his life he was eager and ambitious. Very analytical in his logic, he soon gained fame for his investigations. Before he was twenty-six he completed and published his elaborate research on thrombosis and embolism, which solved the riddle of pyemia. This work was published in two volumes.

The essence of Virchow's cellular pathology was his immortal aphorism "Omnis cellula e cellula." In his masterful work on embolism and thrombosis he summarized his views on the subject of pulmonary occlusion into four groups.

1. Blood clotting occurs as a result of compression of a branch of the pulmonary artery at some point, as when an artery is ligated.

2. A harmful substance or an irritation transmitted from adjoining structures by continuity of parts sets up an inflammation in such a vessel and this brings about clotting of the column of blood in the vessel, as is assumed for other blood vessels.

3. The blood clots spontaneously without a mechanical obstacle and without the agency of the vessel walls, the agency for clotting lies in the blood itself or in some elements mixed with it.

4. The occlusion results from a more or less compact mass which is brought by the circulation to the pulmonary arteries and there impacted.

In his work on cellular pathology dedicated to John Goodsir of Scotland he says, "The history of medicine teaches us, if we will only take a somewhat comprehensive survey of it, that at all times permanent advances have been marked by anatomical innovations, and that every more important epoch has been directly ushered in by a series of important discoveries concerning the structure of the body. So it was in those old times when the observations of the Alexandrian School, based for the first time upon the anatomy of man, prepared the way for the system of Galen; so it was, too, in the middle ages, when Vesalius laid the foundations of anatomy, and therewith began the real reformation of medicine; so lastly was it at the commencement of this century when Bichat developed the principles of general anatomy. What Schwann,

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however, has done for histology has as yet been but in a very slight degree built up and developed for pathology, and it may be said that nothing has penetrated less deeply into the minds of all than the cell theory, in its intimate connection with pathology."

Biological thinking in a cellular sense commenced about 1840 and this new conception was introduced by Rokitansky, who, however, followed the wrong direction in its application. Rokitansky's first edition was a treatise on pathological anatomy. His was a doctrine of "crases" and "stases" in which chemical states of substance were actually conceived as being "susceptible" to disease. Virchow promptly attacked this doctrine and it was ridiculed out of existence. Rokitansky was attempting, by a chemical hypothesis with bizarre terminology, to rewrite the ancient chapter of solidism and humoralism. Virchow termed this a monstrous anachronism.

After reading Virchow's criticism, Rokitansky was said to have never looked at his first edition again. Despite this, Virchow paid Rokitansky the compliment of being the ablest descriptive pathologist of his time.

Virchow graduated at the University of Berlin in 1843 at the age of 21. He began his first investigation in 1844 on phlebitis. In 1845 he was made assistant prosecutor with the large sum of three hundred dollars plus board and room. His fame, based on the good sections he made, soon spread. He read his paper on "Inflammation of the Veins" on the 2nd of August, 1845, the occasion of the fiftieth anniversary of the foundation of the Academy of Military Surgeons in Berlin. In 1846 he was made full prosecutor of the Charité Hospital at Berlin and controlled the whole anatomical material in that great institution. He immediately utilized the vast amount of material this position gave him and how diligently he used it is shown by the fact that in 1899 he dedicated the Pathological Museum of Berlin, to which he gave his entire collection of 23,066 preparations. These had been individually labeled and prepared by himself. In 1845 he described leukemia as white blood, which brought him into dispute with John Hughes Bennett. He termed leukemia "Sarcoma of the blood with liquid intercellular substance."

He delivered many lectures on pathologi-

cal anatomy and in 1847 received his appointment as regular lecturer in the university. His thesis for the position as Privatdozent had to be given in Latin. In the same year, with the aid of Reinhardt, he founded the Archives for Pathological Anatomy and Physiology and for Clinical Medicine known as Virchow's Archives.

In 1848 the German government sent him into upper Silesia to study the typhus fever that was prevalent there. His report was a masterpiece consisting of both medical and social facts. This report did much to enhance his reputation as a painstaking investigator and an accurate observer.

The histological examination of normal and diseased tissues convinced him of the functional importance of cells as regards life, but his studies of the connective tissue led him to his most important conclusion, that all cells, including pathological cells, come from pre-existing cells. This latter point had remained obscure even to Schwann, who, in 1839, the year in which Virchow matriculated in medicine, had published his great work on the cell structures of animals and showed that the ovum was a cell, the significance of which was not grasped by him. Cells were recognized, but only as building material.

In 1849, Virchow's political views, which were later to become quite prominent, led him into some difficulties. His father was a hard-headed conservative farmer, and city chamberlain of the town of Schievelbein, ready to accept the authority of his superiors. Not so, his illustrious son, however. Virchow, now prosecutor at the Charité Hospital of Berlin, a government institution, expressed himself openly concerning his political views and carried on an active campaign against the government. He said, "As a man of science, I am necessarily a republican; for the realization of the demands determined by the laws of nature and the demands that arise out of human nature is only possible in a republican form of State." The minister of public education, through the agencies of political pressure by the government and political factions, relieved Virchow of his government position in the Charité. But Virchow's popularity brought such a force of protest from medical societies, physicians and students, who had academic freedom at heart, that the order was rescinded.

Virchow was requested, however, to

move into new quarters where his political influence on the employes and officials of the hospital would not be felt. In addition he received one hundred and fifty dollars for scientific research.

Perhaps this incident influenced him to some extent in accepting the call to the University of Würzburg. This was in 1849. However, even before Virchow's political difficulties with the Government in Berlin, negotiations had been in progress between the medical faculty at Würzburg and the Bavarian Government to extend a call to Virchow.

Professor Oertel, Professor of Pathology of McGill University, is authority for stating that the chief promoter of this scheme to bring Virchow to Würzburg was Rinecker, to whose wise judgment that university already owed the selection of Kiwisch in gynecology and Kolliker in anatomy. But the Bavarian government at first hesitated on account of strong clerical and political opposition to Virchow, but finally consented and Virchow was officially called. Thereupon he made certain demands in Berlin, which, as the Minister of Education stated at that time, could not be met for financial and other reasons, and Virchow accepted Würzburg.

In 1856 the University of Berlin recalled him on his own terms. Here he remained until his death on September 5, 1902.

Knowing what we do today of pathological anatomy, it may be difficult to picture to ourselves the prevalent opinions of disease as they existed even so short a time ago as the early years of the eighteen hundreds. Humoral pathology was the reigning thought. The fevers, for example, were classified according to the symptoms, such as catarrhal (yellow tongue with pain in the epigastrium), bilious, rheumatic, etc.

Rokitansky, the famous pathologist, living in the dissecting room, made two errors—ignorance of and disregard of histology and the clinging to humoral pathology. Pathology was an appendage to the natural sciences then recognized.

At the time Virchow began his studies, it was generally held that cells originated from an unorganized germinal substance, the blastema. Out of the latter was differentiated, first, a nucleus, and later, by diffusion through the nuclear membrane, the cell protoplasm. The intercellular substance and exuded fibrin were regarded as mother

substance of cells and all inflammatory and even tumor cells were traced to vital differentiation of such at first unorganized blastemas.

In April, 1847, Virchow, writing on the standpoints of scientific medicine, in the first volume of the Archives for Pathological Anatomy and Physiology and for Clinical Medicine, said, "We ought not to deceive ourselves or each other in regard to the present condition of medical science. We shall soon perceive that observation and experiments only have a permanent value. Then, not as the outgrowth of personal enthusiasm, but as the result of the labors of many close investigators, pathological physiology will find its sphere. It will prove the fortress of scientific medicine, the outworks of which are pathological anatomy and clinical research." Five years afterward he could say, "The scientific method of medical research is firmly established. It is not my merit to have discovered it. Without me it would have been found, and the new trail would have been followed."

When Virchow founded the Archives bearing his name in 1847, he portioned out the whole field of medicine. Hirsch was his right-hand man in this endeavor. He surrounded himself with a distinguished staff of abstractors, most of them original workers. The rules he laid down in his prospectus stated that the abstractors were not to give space to merely speculative papers, but to pick out the best ascertainable new facts and summarize them without note or comment. Indexing in two volumes was a tribute to German system and method. Before many years each specialty of science had its own archive or Zeitschrift, until today the library shelves are groaning under the weight of the literature of the years.

Virchow built the first pathological institute in which all departments of pathological research were properly housed, united and coördinated. He was responsible for making it an academic university institute on hospital grounds. He lived to see every university of note in the world follow.

In 1858, Virchow coördinated his pathological work and delivered his famous twenty lectures to an audience of physicians under the title of "Cellular Pathology as Based upon Physiological and Pathological Histology."

He formulated four great principles in these lectures—and they remain true today.

First—The cell is the unit of life.

Second—All cells develop from pre-existing cells (the famous aphorism—*omnis cellula e cellula*).

Third—Diseases are pathological cell changes and disturbed cell relations.

Fourth—The anatomical changes thus produced constitute the disease.

With these principles, Virchow threw into the discard all speculative and fantastic theories held about disease for centuries. It was truly the beginning of modern medicine. No one can really grasp the entire significance of this discovery. By it he created the modern objective study of disease and the anatomical conception of diseased processes as cell changes. This was Virchow's greatest contribution to scientific medicine.

He delved into all domains of medicine, as a study of his papers will show. He made extensive researches into anthropology, publishing many papers in this field, such as "Contributions to Pathology of Skull and Brain," "Cretinism," "Development of Cretin Cranial Deformities." He covered subjects connected with public hygiene, reform of medicine, epidemics, endemics, statistics on morbidity and mortality, hospitals, military medicine, criminal law and forensic medicine, but his name will live for his contributions in pathology. What we must learn from his success is that observation and experimentation were the two principles upon which rested the whole structure of his life work. Up until this time medical thinking was more or less wholly speculative philosophy and, as the Germans call it, "Fantasieren."

When Virchow returned to Berlin from Würzburg in 1856 he was thirty-six years old, and in the prime of his intellectual vigor. Because his fame had spread internationally, the German government provided him with a special building, the Pathological Institute, where he did all his subsequent work. His famous contribution on tumors was published in 1863 and this alone would have been sufficient to gain for him undying fame. How diligently and laboriously he worked is shown by the fact that this work, as well as the cellular pathology, was carried on at the very time he was active as a member of the Prussian House of Representatives. He considered this latter a diversion. His interest in civic affairs was actuated by his concern for the welfare of

the body politic in all its relations. He was mainly responsible for the installation of the famous Berlin sewerage system. His positive nature brought him into conflict with many dominant leaders of thought; his most famous adversary was Bismarck. His opposition to this famous personage was continuous and so violent that on one occasion it led to a challenge to a duel, coming from the Iron Chancellor. Their differences were mainly along the line of military policies.

Virchow was supremely confident in his quarrels with Bismarck and the former's reputation made him feel like a demigod—"cocky" might be the colloquial expression. Note the following conversation:

BISMARCK: "Does not the honorable member deem it possible that, in the domain of his specialty, one to whom anatomy has been only a side issue, on addressing an audience politically sympathetic towards the speaker and personally well-disposed towards him, but not profoundly versed in the science as the honorable speaker himself—that before such an audience, such a speaker (with less eloquence than the honorable member has displayed) might with conviction put forward anatomical statements of whose inaccuracy the honorable member, being himself an expert, would be fully convinced, but which he would only be able to refute before an audience as fully conversant with all the details as himself is?"

VIRCHOW: "I wish the minister president were likely to win among the diplomats of Europe a position so highly esteemed as my own among the specialists of my profession. His policy is indefinable. We might even say that he has no policy . . . and above all, not the slightest inkling of a national policy. He has no understanding whatever of national concerns."

And then Bismarck, aroused, replies:

BISMARCK: "I fully recognize the honorable member's high position in his own specialty, and I admit that in this respect he had the advantage of me, but when the honorable member forsakes his own province, and, uninstructed, trespasses upon my field, I have to tell him that in political matters his opinion weighs very little with me. I really think, gentlemen, I do not exaggerate in saying that I understand these things better. The honorable member charges me with a lack of understanding of national politics. I can throw back the charge, while suppressing the adjective. To me it seems that the honorable member has no understanding of politics of any kind."

Virchow at one time expressed his doubts of Bismarck's truthfulness and Bismarck countered with a challenge to a duel. Virchow's answer at first was a vague one and then a flat refusal. Bismarck at this time was fifty years old.

Both Virchow and Bismarck naturally had certain ideals in common. Both were united in their opposition to the Centrist or Catholic party led by Windhorst. It was Bismarck's quarrel with this party that led

to his famous remark, "Nach Canossa gehen wir Nicht," meaning that the German government would not discuss their difficulties with the Pope. Henry II of Germany had to do penance for two days before seeing the Pope. Like his father, Virchow himself was an atheist. At one time he said, "I have made thousands of postmortems but have never come across any trace of a soul."

One can understand some of Virchow's egotism from the opposition which he encountered early in his career when he was struggling to "put over" his "omnis cellulae cellula" idea. When he read his paper on "Inflammation of the Veins" on August 2, 1845, he caused general indignation and resentment. This seemed like heresy. Busch, the director of the obstetrical clinic, exclaimed, "Well, well, did you hear that? He tells us that we know nothing at all."

It was not many years later when he had the whole medical profession at his feet and eating out of his hand, as it were. Everything was "Virchow says"—and this carried with it the stamp of finality. So it is perhaps not to be wondered at that he became an egoist and a "demigod." But with all this it would seem that if his psychic character was fundamentally sound his modesty should have asserted itself to some extent at least. History records that many geniuses (for Virchow was that) have reached the pinnacle of success and have kept their modesty to the end. One can of course find many excuses for his conduct. Much of his pathological work was plagiarized and he says of this, "For years I have become accustomed to the fact that others utilize my labors. I have complained of that in 1856 and have more reason now. Many pupils who learned the new results of my research in my lectures have not always remained conscious of the source of their knowledge and thus have not always been in a condition to give me credit in their publications. Whoever has gathered around himself many pupils through many years must expect that his own thoughts may return to him from afar."

The following is a short sketch given to me by Dr. Ballin, who was one of Virchow's pupils:

"Virchow was really too advanced in his thinking for the undergraduate student. It took him several years to get through the chapter of special pathol-

ogy. It took a whole semester for him to lecture on the liver, and this, obviously, demanded too much detailed knowledge for the young student. The expression of inattention could frequently be noted in his large audience of over three hundred, and Virchow was always ready to pounce on one of the tired looking fellows about the inattention shown.

"On the other hand, he was a splendid teacher for any one who wanted to learn a system. One had to be scrupulously adherent to his technique on post-mortems as laid down in his book on 'Sektionstechnik,' which is followed in all autopsies except for modern improvement in taking out the whole peritoneal or pleural sac at times. On the autopsy table there were always five knives, one to be used for the cartilage of the sternum and the finer ones graded for different types of tissue, and woe to the man who took the fine knife for rough tissue. This should still be taught to internes and surgeons who use fine instruments for cutting bandages and to some of our pathological confreres who are always lacking a sharp knife.

"A special grievance in Virchow's eyes was mutilation of specimens, which is still a hobby of physicians and students, as may be seen in our Friday morning conferences, where everything from tooth-picks to pencils is used to mutilate the specimens sent around. The glass containers for specimens were sealed with paraffin, and again woe to the student who tipped such a container so that the alcohol touched the paraffin. He had a lecture coming to the effect that paraffin was soluble in alcohol, et cetera. The great man always had time for such detailed instructions, to which many of his students owe their education in important details.

"Virchow was a small man, not weighing more than 120 to 130 pounds, with a very intelligent face, keen blue eyes looking through gold-rimmed eyeglasses which were often up on his forehead so that he could use his myopia to better advantage for seeing details closely. A good deal of the detailed teaching in Virchow's Institute was left to assistant professors, who, unfortunately, had learned from Virchow, as Schiller says of Wallenstein's sublieutenants, 'How he coughs and how he spits.'

Virchow was a man of wide attainments. His studies led him, as stated before, into many fields, such as anthropology, paleontology, archeology, teaching social reforms, politics and of course pathology. During the Franco-Prussian war he organized the Prussian Ambulance Corps and superintended the erection of the army hospital in Berlin. He wrote an essay on the hospitals of the middle ages, giving a catalogue of these institutions in 155 German cities. In Virchow's studies on leprosy of the Middle Ages, he listed and described with great patience an amazing number of leper hospitals in all German cities during the 13th and 14th centuries. The building of leprosariums represent a truly great social and hygienic movement.

His contributions of anthropology number into the hundreds, for this was his special hobby. One of them is of particular interest to Americans, namely, the "Atlas Cranii Americani," which he prepared in

memory of Columbus and the discovery of America. Racial characteristics, anthropometry, relics of the Trojan war and many other studies along this line occupied much of his time. He erroneously ascribed the defect in the Neanderthal man as due to osteomyelitis. Prehistoric studies on syphilis, tattooing, and the Trojan wars were among his many contributions. He contended that humanity is of diverse origin. In his opinion, the left ulna of the original Neanderthal skeleton, which was fractured, was rachitic. He maintained that the caries sicca of prehistoric and pre-Columbian skulls was not true syphilis, but either identical with the arthritis deformans (Hohlengicht) of old cave-bears or else caused by plants and insects, which would eliminate the question of prehistoric syphilis in Europe.

He paid particular attention to the physical anthropology of the Germans. He was very patriotic and the remark made by Quatrefages during the Franco-Prussian war when the Natural Museum of History at Paris was accidentally shelled, that the Germans were a barbaric, Mongolian race, incensed Virchow. This led to the famous public census of the color of the hair and eyes of 6,000,000 German school children.

He also made valuable contributions to parasitology, his work on trichinosis being especially good and likewise his discovery of the sarcinic and aspergillic forms of mycosis of the lungs.

His original descriptions and discoveries are very numerous. In 1856 he pointed out the embolic nature of the endocarditis plugs. He first described leontiasis ossea, aortic hypoplasia with hypoplasia of the heart associated with chlorosis.

He differentiated lupus and tuberculosis. He discovered the neuroglia in 1846 and the special lymphatic sheaths of the cerebral arteries (1851).

Virchow's salary, when he returned to Berlin after his stay in Würzburg, was \$2,000, and he regularly sent part of his pay to his parents for their support.

Virchow was set in his views and very dogmatic. He opposed certain of the philosophical views of Haeckel. He did not accept Darwinism in its entirety and cautioned against the whole-hearted acceptance of Darwin's ideas on natural selection until more thorough studies had been made and

further scientific investigations had proven the worth of these views. It is said that Fritz Müller was the first German to support Darwin, Haeckel the second, and Weisman the third.

His greatest competitor was the bacterial era which followed after his teachings had reached all parts of the world. Some of the bacterial enthusiasts, such as his own pupil, Klebs, thought that the bacterial origin of disease would spell defeat for Virchow's teachings. The sound fundamentals laid down by Virchow were often literally thrown overboard by the hysterical bacterial enthusiasts. We can see this today in our own time when fanatics are ready to brush aside sound teachings and permit the pendulum of enthusiasm to swing too far in one direction. It is fortunate for us that the profession has within it sagacious older "heads" and Nestors who have lived through periods of enthusiasm and found that steering a slow middle course is usually the best.

Koch's work with the anthrax bacillus fascinated Virchow's pupil, Cohnheim, who begged his chief to convince himself of the anthrax experiments. So Virchow answered him rather snappily, "All right, let him show me."

Virchow was, of course, somewhat prejudiced against Koch, for it was a debate between the old and young school of teaching. It may be that Virchow did not at first grasp the significance of the bacterial origin of disease. From what I have been able to gather, he was not unalterably opposed to the teachings. Helmuth Unger, who wrote a biography of Robert Koch, discussed the debate between Virchow and Koch and called attention to Virchow's fairness in the matter; for already in 1868, therefore long before Koch's discovery, Virchow acknowledged the existence of the cholera bacillus, but he desired strict proof of all theories. Dr. Oertel, the McGill pathologist, says, "With it all he was just and fair and no one has ever had greater regard for duty and responsibility. At the heated discussion on the value of diphtheria antitoxin in the Berlin Medical Society shortly after it was introduced in 1894, I heard him discuss the question with eminent fairness and impartiality." Posner, who came to the defense of his teacher, Virchow, wrote, "He always demanded scientific proof, a rule which he laid down for himself. When Cohnheim

came out with his new inflammatory theory, Virchow facetiously remarked that the students didn't see anything else now but the diapedesis of leukocytes. And in a like manner, when the bacterial era began, he opposed those who, in finding a microorganism, erroneously believed that they had gotten at the bottom of the disease characteristics. It is absolutely false if one accepts the view that he was unalterably opposed to the teachings of the bacteriological origin of disease."

It is rather interesting that, despite the fact that these two great men, Virchow and Koch, lived in the same city (Berlin), they never met again. If it was possible, they went out of each other's way. Virchow, had he said the word, could have seen to it that Koch was asked to Berlin; but he remained silent and other influences, however, saw to it that Koch received the call to Berlin.

Virchow was no exception to the rule that great men are eccentric. With all charitableness it must be said of him that he lacked the "milk of human kindness." He was often unnecessarily severe and most sarcastic. His manner was rude and brusque. He was a hard taskmaster, but he himself lived up to his standards of living. His day began at 8 o'clock in the morning with a sumptuous breakfast of meat and beer, and later in the morning he ate a hearty luncheon, for, as he says, "Without these sustaining matters, the work of the day would have been too exacting." And he remarked that he learned more in conversation over beer and wine than sitting at his desk. He was an exponent of the German "Gemüthlichkeit."

He had no time for the amateur meddler and scientific "climber." Like Warthin of Ann Arbor, he had the reputation of being the hardest examiner to "get by." He was not infrequently very insulting to students and others, showing an utter disregard for feelings. He suffered somewhat from exaggerated ego "and placed himself and his subject on a high pedestal. This disregard for others led to an irregularity of teaching hours. He would come and go as he pleased, beginning and ending his lectures as his fancy dictated. He would show his displeasure in no uncertain way when anyone took exception to his arbitrary methods. His associates also suffered from his eccentric ways and he was slow in promoting them."

He showed to a marked degree the German characteristic of stubbornness, for he was set in his ways and ideas. His displeasure with the development of bacteriology and immunology has been mentioned. The chemical explanation of vital processes was so much like the old humoral pathology that one can understand his objections, but it must be said that some of the more recent work supports in a measure his objections.

It may be that it was fortunate for modern medicine that cellular pathology was championed by such a firebrand as Virchow, for a less enthusiastic fighter might have met defeat at the hands of able adversaries.

Virchow was a bitter enemy, going to great extremes to prove his point and upset his adversary. Traube and Frerichs of Berlin did not get along very well and Virchow favored Traube and hated Frerichs. These two clinicians would walk at the head of their classes without paying the least attention to one another, and the pupils were forbidden to associate in public. The new Charité Hospital, an ugly, gloomy building with grated windows, harbored the insane, syphilitic and convicts. Virchow was physician in chief. Making rounds on these patients was believed to be a part of Virchow's ironical program in reference to Frerichs. Regenburger relates that he once saw Frerichs harpoon the biceps of a living patient to secure a preparation of trichina. Four days later the patient died of pyemia. The case was posted by Virchow, who began the necropsy by mimicking the solemn, pontifical manner of Frerichs: "Gentlemen, another sacrifice to our science."

He had a high regard for his English and Scotch contemporaries. He had a genuine affection for Lister and paid a wonderful tribute to Lister at a small private dinner which he gave in Lister's honor. Lister was much affected by this tribute and found difficulty in restraining his emotions. Pasteur, too, was held in high esteem by Virchow. These men were of course able scientists, setting up a standard at least equal, if not better, than Virchow's. One cannot help but contrast the great Virchow with that wonderful teacher and scholar, Osler. Such a contrast—from the human side—the direct opposites in dealings with their fellow man.

Osler, of course, was quick to recognize the soundness of Virchow's teachings and one of the first things he did when he re-

turned from Berlin to Montreal was to adopt Virchow's teaching methods.

It has been said of Virchow that he was a "dyed-in-the-wool" morphologist. While he demanded proof of theories, he recognized the fact that one can not duplicate the "natural experiment of disease" of the human in an animal, for we never duplicate in animals the many phases of disease as we meet with it in humans.

Virchow was small in stature, with rather small eyes. His ability as a speaker was not

at all striking, being hesitant at times in his speech, but winning his audience by his sincerity and enthusiasm. He received almost all the honors that can come to a man in a lifetime. Degrees, medals, prizes, the naming of hospitals, such as the Rudolph Virchow Hospital of Berlin, were all his. He was honored by his emperor both in life and in death. The whole medical world paid him honor and in his death lost a genius and pioneer, a champion of medical truths, a keen and ardent scientist.

CONVULSIONS DURING ETHER ANESTHESIA

Two Case Reports and Discussion

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It was in 1846 that William Morton, a dentist, demonstrated the use of ether as an anesthetic at Massachusetts General Hospital. Inhalation anesthesia for surgical operations had its inception at that time. Since then millions of ether anesthetics have been administered. Yet for eighty years, or until 1926, no one ever heard of "ether convulsions."

Then suddenly the medical world was startled by Wilson of Manchester Royal Infirmary, who reported the first case of "ether convulsions." Since then nearly two hundred such cases have found their way into the literature. Each year the number grows as more and more surgeons add their cases of this dramatic accident to the list.

Can it be that for eighty years no surgeon had enough intelligence to recognize an "ether convulsion"? That is doubtful because the phenomenon is too obvious, too serious, and too impressive to have escaped the notice of all the great surgeons of the past.

If such cases had occurred prior to 1926 we would have heard of it. Hence, we must start our investigation of "ether convulsions" with this idea firmly in mind, that something happened about 1926 to make this most serious surgical accident possible.

What that "something" is we shall try to determine by a review of the theories of various investigators.

Description of "Ether Convulsions"

Before proceeding further let us understand what is meant by "ether convulsions." Rosenow and Tovell¹³ give the best description of this phenomenon:

"The patients are frequently children or young adults. Many are suffering from acute infections associated with pyrexia. Ether is the agent that

has been most frequently associated with the syndrome, although frequently it has been administered as a vapor, with oxygen or with nitrous oxide and oxygen.

"Respiration is usually rapid and is labored to some extent, but frequently the first untoward sign noted is twitching of the muscles of the face, occurring during the maintenance of the anesthesia. The pupils are widely dilated and the globe is fixed in position. The twitching spreads to the muscles of the neck, shoulders and arms, finally to the legs and abdomen. As the twitching spreads it becomes more active. Finally violent and sustained epileptiform convulsions occur, associated with cyanosis of varying degree. Hyperpyrexia develops. Following cessation of administration, recovery from anesthesia is delayed. Death may occur while the patient is in the operating room or later from exhaustion associated with deficient oxygenation."

There are three factors present in most of the cases presenting this syndrome. Most of the patients are children or young adults. Most of the cases are toxic, and nearly all the operations were with ether anesthesia. In Lundy's⁸ analysis of 144 cases found in the literature, seventy-three of them were toxic. Most of these were cases of acute appendicitis or acute mastoiditis. Ether, or nitrous oxide and ether, were the anesthetics used on all cases except one chloroform, two nitrous oxide and one ethylene.

It should be noted at this point that not all convulsions occurring during anesthesia are "ether convulsions." Bowman¹ believes there are at least three types of anesthesia convulsions. First, convulsions at the beginning of ether or nitrous oxide narcosis. This is of the coarse clonic type, later becoming tonic. Probably due to too rapid administration of anesthesia with backing up in the blood of excess carbon dioxide, and is probably respiratory in origin. Withdrawal of anesthesia usually stops this form of convulsion, but has no effect on "ether convulsions." The second type is a toxic convulsion due to ether impurities. This type was observed during the World War and ceased when the impurities were removed from the ether. The third type is the "ether convulsion" already described. This type is unrelated to the other two kinds.

Case Reports

The following two cases of the author's occurred during 1938.

Both of these cases had the common background of the vast majority of recorded instances of "ether convulsions," namely, they were children suffering from acute infections which were associated with hyperpyrexia and on whom operation was performed with ether as the anesthetic agent. In both cases the convulsions were typical in their onset and course. In both, the convulsions were stopped by the same agent, a barbiturate.

Case 1.—J. W., female, aged eleven. Diagnosis: Acute appendicitis with fecolith. *Laboratory Findings:* white cell count, 12,300; polymorphonuclear cells, 81 per cent; eosinophils, 1 per cent; small lymphocytes, 16 per cent; monocytes, 2 per cent. Urinalysis: negative.

This patient had a text-book type history of acute appendicitis. Her past history was essentially negative. There was no evidence of previous convulsions nor of epilepsy in the family.

At the time of operation the patient's temperature was 103 degrees, respirations 24, pulse 104, blood pressure 96/66. Preliminary drugs administered were: Nembutal 1½ grains given one and a quarter hours before operation; morphine sulph. gr. ⅛ and scopolamine gr. 1/200 by hypodermic one-half hour pre-operatively. Anesthesia was nitrous oxide-oxygen-ether.

COURSE DURING OPERATION.—Shortly after the start of the operation the patient stopped breathing. Twitching of the face occurred, followed quickly by a major clonic convulsion. The anesthetic was stopped, artificial respiration begun and one ampule of alpha lobelin given intramuscularly. This convulsion lasted about two minutes. When the patient again began to breathe, anesthesia was changed to open drop ether and the operation resumed. Local infiltration anesthesia with one per cent novocaine was used in the abdominal wall.

Shortly after the peritoneum was opened the patient had a second major convulsion lasting three minutes. Oxygen-carbon dioxide (70-30 per cent) inhalations were used. The operation was completed without further anesthesia.

As the abdominal wall was being closed, the patient had a third major convulsion of somewhat longer duration than the others. Two grains of luminal sodium solution were given intramuscularly and the convulsion ceased. The patient had no further convulsions.

Convalescence was uneventful. Temperature and pulse returned to normal after the third post-operative day. There were no apparent after-effects of the convulsions and the patient was discharged on the tenth post-operative day. Date of operation was July 1, 1938, at 12:15 A. M.

Case 2.—G. C., male, aged ten. Diagnosis: Acute perforated appendicitis with generalized peritonitis.

The patient complained of continuous peri-umbilical pain for one and one-half days prior to operation. Vomiting was frequent the day before operation. Child's past history was essentially negative. Careful inquiry failed to reveal any evidence of convulsions or of a family history of epilepsy.

The physical examination was negative except for the abdominal findings due to perforated appendicitis.

Laboratory findings: (1) White blood count on admission was 21,000 with 96 per cent polymorphonuclear cells (22 per cent, non-filaments);

(2) culture of pus in abdominal cavity showed mixed organisms including short chain streptococci;

(3) urinalysis prior to operation was negative.

At the time of operation the patient's temperature was 102 degrees, respirations 22, pulse 128.

Preliminary drugs: Morphine sulphate gr. ⅛ by hypodermic at 6 P. M., two hours before operation, given primarily for relief of pain. *Anesthesia:* Open drop ether. Total anesthetic 270 c.c. No local anesthesia was used.

The operation was uneventful until closure of the abdomen was started. At this point the patient had a major clonic convulsion lasting five minutes. In view of our experience in Case 1, luminal sodium solution, grains two, was given, intramuscularly, followed by ten c.c. of a ten per cent calcium gluconate solution, also given intramuscularly. Also, inhalations of oxygen-carbon dioxide (70-30 per cent) were given. Convulsions stopped within two minutes and did not recur.

The anesthesia was stopped when convulsions commenced and was not resumed. No further convulsions occurred.

The convalescence was stormy, as might be expected with a case of perforated appendicitis and generalized peritonitis.

The abdomen continued to drain for two months. For one month (the length of hospital stay), the patient was septic.

Convalescence was further complicated by the development of pyelitis and by an abdominal wall abscess. Recovery was complete two months after operation. There were no apparent after-effects of the convulsions.

Theories at Present in Vogue

In June, 1938, Smith¹⁵ summarized as follows what he thought were the most tenable theories as to the cause of "ether convulsions":

(1) Hypoglycemia, (2) neurotoxin pro-

duced by streptococci, (3) calcium imbalance, (4) hyperpnea, (5) allergy, (6) disturbance of the heat regulating mechanism.

Two years before, Woolmer and Taylor¹⁸ published a somewhat different list of possible causes of this condition. These were: (1) Impurities in ether, (2) idiosyncrasy, (3) carbon dioxide accumulation, (4) sepsis, (5) over-oxygenation, (6) cerebral congestion, (7) heat stroke, due to overheated operating rooms.

Previously, Daly,³ Haseason⁶ and other English writers were of the opinion that atropine was a causative factor in producing a disturbance in the heat regulating mechanism and hence producing "ether convulsions" because atropine tends to check heat and fluid loss from the body. Yet in Lundy's¹⁰ analysis of 144 cases of "ether convulsions" many had no atropine. In fact, most of the fatal cases had no preoperative medication.

Concerning these theories it can be said categorically that none of them has been proven, nor has experimental evidence been offered to substantiate any of them except the neurotoxic theory of Rosenow. Let us briefly examine these theories.

Ether impurities, on analysis of the ether, has never disclosed harmful chemicals present in harmful amounts. Carbon dioxide with oxygen gives most effective relief from convulsions in many cases. Sepsis, in itself, is not the answer because ether convulsions have occurred in the absence of sepsis. Cerebral congestion, especially in the Rolandic area, is a possibility, but has not been verified.

Heat stroke, due to overheated operating rooms, is favored by many British writers^{14,18} and one American observer.¹⁵ Yet it is a fact that in a number of these cases neither the room temperature nor the patient's temperature was high.

Theory of Anaphylactic Shock

Waldbott¹⁷ has advanced the theory of an allergic reaction to the anesthetic agent. He says that, of the various explanations of death enumerated, most are well in accord with features encountered in anaphylactic shock.

If one considers the recent observations of Stroh¹⁶ on the less common manifestations of allergy, then Waldbott's explanation may not be so far afield. As Stroh says, localized edema of the brain simulating brain

tumor, has frequently been observed by brain surgeons and that many cases have been reported where epilepsy has disappeared following treatment of an allergic condition.

Epilepsy and ether convulsions may be allergic and a manifestation of anaphylactic shock. Yet there is no definite proof of this association. Argument is all on the basis of "post hoc, ergo propter hoc."

Hypoglycemia is a result rather than a cause of convulsions. Calcium imbalance is supported only by the fact that the administration of calcium seems to effect relief. Although this is not always effective, as in the case presented by Daly,³ where the patient had had calcium gluconate 5 c.c. twice daily for some weeks before operation and still had a convulsion. Hyperpnea alone is not of great importance as it occurs frequently during anesthetics without producing this syndrome.

Idiosyncrasy may be a cause. It can not be ruled out on the basis of present evidence. We know that many individuals are susceptible to various drugs in therapeutic doses. But why should we just begin to notice idiosyncrasy to ether in 1926? Hence, historically, if for no other reason, this theory is untenable.

Neurotoxic Theory of Rosenow

In Case 2 it was definitely established that the infection was streptococcal in origin. Whenever, as in Case 2, attempts were made to isolate the causative organism of infection, the streptococcus has usually been found.

In 1936 Rosenow and Tovell¹³ conducted a series of experiments on rabbits with cultures reproduced from the lesions of patients who had ether convulsions, as well as with cultures taken from the nasopharynx of these patients.

They found that in two of their five convulsion cases, cultures from the nasopharynx of these patients were streptococci, which were neurotropic in reaction to specific sera.

In their rabbit experiments they were not only able to reproduce the lesions for which the patients were operated on, but also they reproduced the typical "ether convulsions" as seen in the patients.

"The results of these experiments," say Rosenow and Tovell, "suggest that ether convulsions are attributable to a neurotoxin

or poison produced by some strains of streptococci in amounts insufficient to cause spasms in the absence of anesthesia, but which, in the course of general anesthesia, suffice to incite the muscular spasms characteristic of this condition."

Hence, if we postulate a patient who harbors a specific strain of streptococci in his system, either at present actively multiplying and producing neurotoxins or which was previously active, perhaps as an acute nasopharyngeal infection, so that the patient was sensitized to the protein of this strain of streptococci, and if we superimpose on that streptococci-sensitized system a cerebral irritant, namely, a general anesthetic such as ether, we have all the elements necessary to produce an anaphylactic shock or a convulsion.

Neurotoxic Theory Not Proven

Whether this neurotoxin of streptococcal origin is the real cause of "ether convulsions" or is only a contributory factor of real importance, cannot be definitely decided in the light of our present knowledge. Further clinical and laboratory study is needed to prove or to disprove this theory. However, it is the only significant attempt yet made to arrive at a scientific answer to this perplexing problem.

The chief argument against this neurotoxic theory is the fact that a fair number of cases of this type are on record where the patient did not have any evidence of infection. A notable example is the case reported by Gitlin,⁴ where the patient, aged thirty-one, had a perineorrhaphy, hemorrhoidectomy, salpingectomy, and uterine suspension done under nitrous oxide-oxygen-ether anesthesia. Gitlin offers some impressive evidence, based largely on the work of Lowenberg and Waggoner of the University of Michigan, for the theory that these convulsions are due to toxic by-products of anesthesia. His contention is that these by-products lessen oxidation in nerve cells and result in anoxemia of the brain and hence convulsions.

Gwathmey⁵ disagreed with this opinion and presented some experimental evidence to refute it.

The fact that patients have had "ether convulsions" in the absence of acute infection does not necessarily invalidate the neurotoxin theory as advanced by Rosenow and Tovell because, as shown in their ex-

periments, this tendency for anesthesia to induce convulsions persisted until the experimental animal was entirely recovered from the streptococcus infection, even though there was no clinical manifestation that the infection persisted.

Of the multitude of theories propounded to explain the cause of "ether convulsions," the neurotoxin theory just described is the only one which bears close scrutiny. It must be remembered that prior to 1926 this sort of case did not exist. Hence, any theory advanced to explain the cause of this phenomenon must be one that takes cognizance of this time element.

If we assume, as well we might, that a new strain of streptococcus developed about 1926, then the neurotoxin theory of Rosenow and Tovell is the only tenable explanation so far advanced.

Without question, further proof is needed. To obtain that proof it would be advisable that every surgeon, so unfortunate as to have such a case, try to obtain cultures from both the site of infection and from the nasopharynx and to repeat the experiments as conducted by Rosenow.

Prophylaxis and Treatment

As might be expected, the treatment of this condition is as varied as the theories concerning its causes. But from the morass of confusion there has recently emerged some definite ideas on the best therapy for this surgical emergency.

The anchor sheet of the surgeon is the barbituric acid group of hypnotics. These drugs readily suggest themselves for the control of convulsions because of their excellent effect in epileptic seizures and delirium. Their use in these latter conditions prompted the author to employ one of the barbiturates in his first case of "ether convulsions."

Lundy,¹⁰ Woolmer and Taylor,¹⁸ Rosenow and Tovell,¹³ Gwathmey⁵ and others highly recommend the use of intravenous barbiturates in full doses during the attack and also as preoperative medication in young, septic individuals where general anesthesia must be employed.

Oxygen-carbon dioxide inhalations are also recommended during the attack. Naturally, the anesthetic should be stopped. Some observers recommend the use of chloroform if general anesthesia must be continued.

Only those forms of treatment that have

been most successful and which seem most rational have been mentioned. To enumerate all the remedies proposed would only lead to confusion.

Lundy¹⁰ recommends either spinal or basal anesthesia in preference to inhalation anesthesia in all young and septic individuals as the best prophylaxis against this disastrous accident.

Summary

1. Since 1926, "ether convulsions" have been reported in increasing numbers. More than 200 such cases are found in the literature in the ten year period 1926-1936.

2. Two additional cases of this syndrome are reported by the author.

3. Many theories as to the cause of "ether convulsions" have been advanced. None has been proven, although the neurotoxic theory of Rosenow bears the closest scrutiny.

4. The neurotoxic theory is based on the finding of a streptococcus of neurotoxic origin in certain of these cases and the ability to reproduce the syndrome in rabbits inoculated with cultures of this strain of streptococcus.

5. The treatment of "ether convulsions"

is the intravenous administration of a soluble barbiturate.

6. The best prophylaxis in septic, young individuals with hyperpyrexia who must be operated is the use of basal or spinal anesthesia whenever possible.

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THE IMPORTANCE OF CAREFUL ENVIRONMENTAL STUDIES IN ALLERGIC PATIENTS

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During the past few years, there has been a wide-spread sale of simple scratch testing allergen outfits which has increased to a considerable extent the number of patients receiving allergic study. That such simple skin testing outfits are of some value in a few cases cannot be denied. The physician should realize, however, that in the majority of chronic allergic diseases, the study of an allergic case is very incomplete unless a more thorough investigation is pursued. Unfortunately many physicians, as well as patients, are under the impression that a complete allergic study has been made when such simple routine skin tests have been performed.

The causes of failure are chiefly as follows:

1. Scratch testing, even with the most potent extracts, frequently fails to elicit positive reactions in cases of long duration, and particularly in food-sensitive individuals. In these cases, it is essential that the scratch tests be followed up by the intradermal method, using concentrated, potent extracts.
2. The simple sets of allergens described above frequently do not contain many of the important sensitizing agents.

3. Most important of all, even the best of skin testing methods may fail without a careful investigation of environmental factors, residential and occupational. Such factors, when suspected, should be checked by intradermal tests with properly prepared extracts of the suspected substances.

The importance of very careful history-taking and the study of the environmental factors involved in each case is perhaps far more important than any method of skin testing, which, in the last analysis, is only

frequently confirmatory. The purpose of this paper is not to discourage intelligent skin testing, which so frequently produces valuable clues as to the etiological factors. But it cannot be emphasized too strongly that very careful and thorough history-taking and environmental studies are of the greatest significance, as the following cases demonstrate.

Case 1.—Miss E. P., aged thirty-nine, was first seen in May, 1938. She was a general office worker and had been a dictaphone operator for the past four years. She began to cough in July, 1930, and began to wheeze in September. She received fifty-six scratch tests at this time with a slightly positive reaction to ragweed. An operation was performed on the nose in November, 1930, because of considerable nasal blockage, which improved the asthma for about two years. During this time she noticed that taking aspirin would produce attacks. In the fall of 1933, she began to have asthmatic attacks every night, requiring three to four injections of adrenalin each night. During the past three years, her asthma has been the same winter and summer. She has noticed slight improvement during week-ends, but no sustained improvement while on vacations for a week at a time.

When first seen in May, 1938, she had had very severe asthma continuously for one week, unrelieved with frequent doses of adrenalin. Despite the use of other palliative measures she remained in status asthmaticus and was admitted to the hospital the following day. She was placed in a relatively dust-free environment and was given a very simple diet, eliminating common allergenic factors. After several days, during which she received frequent injections of adrenalin, calcium gluconate and intravenous aminophyllin, she recovered and left the hospital at the end of the week. The second night at home the asthma recurred and it was found that she had failed to completely cover with non-allergic encasings the pillow and mattress. Following this the asthma cleared again and she returned to work several days later. Within a few days after returning to work, the asthma returned with almost as great severity as before. An inspection of her place of employment revealed that her duties as a dictaphone operator required that she shave the dictaphone records daily. It was immediately arranged that someone else in the office perform this duty for her and within a few days the asthma disappeared completely. She has remained free of asthma for the past eight months.

During the time she was under observation, complete intradermal skin tests were performed for several hundred possibilities, including office dust, dictaphone dust, several specimens of house dust, molds, and bacteria. The only significant reaction occurred with cotton and kapok mattress dusts. It was technically very difficult to make extracts from the ingredients of a dictaphone record since these are insoluble in water. The chief etiological factors in this case were dust from dictaphone shavings and mattress dust. The elimination of the latter factor would not have been sufficient to control this case and its solution depended finally on the discovery of the occupational sensitivity to dictaphone shavings.

Case 2.—Mr. N. S., aged thirty-two, was employed as a printer. He was first seen in June, 1934, because he had fall hay fever for the past ten years, accompanied by asthma during the last few hay fever seasons. He had received pollen injections for

three or four years with only fair results. There was no history of perennial symptoms. He gave positive scratch reactions to all the grasses and weeds, but stated that his early spring and summer symptoms were so slight that he desired treatment for only the fall pollens. He was treated with the fall pollens beginning in June, 1934, until September, 1936, reaching a dosage of 3 c.c. of the 3 per cent extract during the pollen season, and receiving 1.5 c.c. every three weeks between the pollen seasons. He was entirely free of asthma and hay fever during this two-year period. At the end of that time, his scratch tests were negative to the fall pollens, and it required an intradermal test of 1 per cent extract to obtain a positive skin reaction.

The patient was not seen from September, 1936, until the following March, at which time he stated that he had begun to have asthma around January, chiefly while at work, but occasionally getting severe attacks after arriving home at night. He noticed that he was better week-ends. He stated that during the past few months he had begun to use a spray material in his work which made him cough. This material was sprayed automatically on freshly printed matter so as to prevent smudging. The spray material produced clouds of fine dust which settled on the floor and fixtures. The manufacturers advised me that it was a mixture of gum arabic (gum acacia), methyl alcohol and water. Intradermal skin tests were performed with a 10 per cent extract of the spray mixture, and a 1 per cent extract of gum acacia. Each of these solutions contained approximately the same amount of acacia. A four-plus reaction was obtained to each of these with marked pseudopods and itching at the site of the injections. Tests with these extracts on several controls were negative. Passive transfers on two normal individuals were positive.

The patient was given subcutaneous injections of the spray extract two to three times a week, during which time he wore a respirator which controlled his symptoms almost completely. On one occasion, an injection of .8 c.c. of the full strength spray extract produced an attack of asthma within half an hour. He received injections of the spray material until November, 1937, after which time he was able to get along almost completely without the use of the respirator, except when large amounts of the spray material were being used.

Case 3.—Miss N. McK., aged thirty-three, school teacher, was first seen in November, 1937. She had had severe nasal blockage and watery discharge beginning in April, 1936, which lasted nine weeks. It began again in the last week of September and has persisted since. She was occasionally better on week-ends, but not sufficiently improved to be certain. She was, however, definitely free of all symptoms from the time school closed in June, 1936, until she resumed teaching in the fall. Her symptoms recurred a few weeks later. She recalled that some change had been made in both the chalk and the floor cleaning compound in the previous year. Complete intradermal skin tests gave many positive reactions to food and inhalants which when removed produced no appreciable change in the patient's condition. She was tested with dust extracts from several schools which were in stock, with negative results. Several house dust extracts were negative. An extract made from the sweepings of her own classroom produced a strongly positive reaction. Extracts of the chalk dust and cleaning compound were negative. Injections were begun with the specific school dust extract and after two weeks of treatment, the nasal symptoms had cleared up completely. Treatment was continued twice a week until the spring, after which time she remained free

of symptoms until the following November, when exposure to school dust again produced mild symptoms easily controlled by occasional injections of this specific dust extract. This case demonstrates the importance of the proper interpretation of skin reactions. Despite many positive reactions to foods and inhalants the chief exciting factor in this case was not discovered until a dust extract had been prepared from this patient's place of employment. It also demonstrates the specificity of dust extracts, since no other schoolroom dusts with which she was tested gave any reaction.

The clear cut histories as set forth above were not obtained until after many visits and repeated questioning of the patients.

It is most advisable while investigating allergic patients to repeatedly question them about such possibilities. It was only after many visits that the significant details of their histories could be recalled by these patients and arranged in chronological order.

These cases are reported to demonstrate the extreme importance of very careful history-taking and the investigation of the environment of allergic patients. No method of skin testing and certainly not simple scratch testing can ever replace this phase of allergic study.

INDUSTRY IN RELATION TO PARANOID SCHIZOPHRENIA

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The rôle that industry plays in precipitating various forms of mental disorders is indeed a significant one, one which to date has not been sufficiently nor adequately appreciated. In this article, the writer endeavors to present an unbiased, irrefutable, statistically supported survey of the present existing picture.

For material, there were available the records and case reports of the Eloise Hospital, an institution located just outside of the industrial city of Detroit. To the psychopathic division of this hospital are sent those unfortunates who are committed by the Probate Court of Wayne County as mentally incompetent or insane.

Inasmuch as Detroit is perhaps the largest industrial city in this country one would of necessity expect that this hospital would receive a large percentage of people of the working or industrial class.

Investigation of 1,892 male cases revealed the fact that there were 690 cases in this industrial group, between the ages of eighteen and fifty-five years respectively, hospitalized at the time of this survey. The writer arbitrarily picked the ages of eighteen to fifty-five inclusive as representing the average limits of most satisfactory industrialization.

The only other instance in which an arbitrary figure was used was when the writer considered only cases that had been in the hospital for a period of ten years, or less. The reason for this ten-year limit being selected was that it was felt that the increased tempo of industrial production and the newer methods of production have been in force for perhaps no longer than the past ten years.

The ages eighteen to fifty-five respectively represent the ages at the time of admission to the hospital, not the present age.

TABLE I.

Total cases studied	1,892
Total cases selected for tabulation.....	690
Total cases of selected group—American born.	395
Total cases of selected group—Foreign born...	295

The average age at admission was 38.04 years. Bearing in mind the ten-year limit of hospitalization, the average length of hospitalization was 4.2 years. Of course, these cases are still hospitalized and many of them may not be successfully re-industrialized.

The average length of the patient's industrial life in Detroit prior to coming to the hospital was 8.2 years.

These statistics and all others will be found later in this article in tabulated form and in relation to each other.

These tables will endeavor to show the proportions and percentages of the incidences of the various types of psychosis occurring in individuals of different nationalities and consequent heritages, of the type of industrial endeavor most commonly encountered, and the relationship of the institutionalized cases to society from the standpoint of presenting social problems in

the form of dependents left to be supported by society.

Under each table, attention will be called to the most significant facts.

TABLE II. NATIVITY

	No. Cases	Per Cent Total Cases	Per Cent American born
<i>American born:</i>			
Michigan born	140	20.29%	35.4%
Southern born	115	16.67%	29.2%
Remainder U. S.	140	20.29%	35.4%
Total	395	57.25%	
<i>Foreign born:</i>			
	No. Cases	Per Cent Total Cases	Per Cent Foreign born
Poland	103	14.93%	34.9%
Russia	32	4.64%	10.85%
Italy	25	3.62%	8.48%
Canada	23	3.33%	7.80%
Austria	20	2.90%	6.78%
Hungary	14	2.03%	4.75%
Great Britain and Ireland	11	1.58%	3.73%
Greece	10	1.45%	3.39%
Germany	5	.73%	1.69%
Remaining Countries, 18..	52	7.54%	17.63%
Total	295	42.75%	

The most significant facts presenting themselves in Table II are that 57.25 per cent of this group of 690 cases were American born and 42.75 per cent foreign born. Of the American born, Michigan contributed 35.4 per cent, or approximately only one-fifth of the total group. The Southern states contributed 29.2 per cent, or one-sixth of the total group, while all of the remainder of the United States contributed the same number as Michigan. (Southern states—those states south of the Mason-Dixon line and east of the Mississippi River.)

Of the foreign born, Poland contributed by far the greatest number, namely 103, or 14.93 per cent of the total group or approximately one-third of all of the foreign born. This number was more than three times as many as from any other foreign country.

TABLE III. DIAGNOSIS

(Total Group—690)

	No. Cases	Per Cent
Schizophrenia	168	24.35%
Schizophrenia paranoid	178	25.80%
*Syphilis	150	21.74%
†Alcoholism	63	9.13%
Manic depressive	53	7.68%
Paranoia	23	3.33%
Epilepsy, Mental Deficiency and other somatic diseases	55	7.97%

*Where the diagnosis of syphilis is recorded, it means all types of cerebral or central nervous system syphilis, whether it be parenchymatous, meningo-encephalitic, vascular or cerebrospinal.

†Alcoholism denotes chronic alcoholism, not acute.

In Table III, it is especially noteworthy that more than 50 per cent of the total group were schizophrenic and of this schizophrenic group 178 were schizophrenia paranoid, slightly more than 50 per cent of the schizophrenics and one-fourth of the total group. (It is interesting to note that ninety-eight or 26.92 per cent of the total schizophrenic group were married.)

TABLE IV. SCHIZOPHRENIC-PARANOID CASES

No. Cases	Per Cent
American born..92	23% of American born
Polish born....41	39.8% of Polish born
Russian born....15	46.8% of Russian born
Italian born....7	28% of Italian born
Austrian born..7	35% of Austrian born
Hungarian born.7	50% of Hungarian born
Grecian born...5	50% of Grecian born
Others .....4	4.40% of all others

Of all the schizophrenia paranoid in the lower numerical groups, Greece and Hungary led, each presenting one-half of their total number as paranoid schizophrenics. In the higher numerical groups, Russia and Poland far exceeded the others. Out of 103 Polish patients in the total group, forty-one, or 39.8 per cent of all of the Polish born were paranoid schizophrenics. Not recorded in the table but an important finding was that thirty-two of the total American born paranoid schizophrenics were from the Southern states, or approximately 35 per cent. This observation assumes considerable importance later in the article.

Inasmuch as of all of the various industries represented in this total group, the automotive industry provided 371, or 54 per cent, Table V was deemed of import.

TABLE V. AUTOMOBILE FACTORY WORKERS

Total Number—371 (54 per cent)

	No. Cases	Per Cent of Total
Schizophrenic paranoid	72	19.4 %
Schizophrenic paranoid, American born	46	12.40%
Schizophrenic paranoid, Polish born....	20	5.39%
Schizophrenic paranoid, Russian born..	4	1.08%

The statistics in Table V, at first glance, may not seem at all startling. However, when one takes into consideration that 19.4 per cent, or approximately one-fifth, of all of the automobile factory workers present the same psychotic picture, namely paranoid schizophrenia, these figures do assume importance and seemingly point to a very reasonable conclusion. This table indicates that, of the Polish born automobile factory work-

ers, twenty, or 50 per cent, present the same psychotic picture, paranoid schizophrenia. In the Russian group, four out of fifteen Russian automobile factory workers present the same psychotic picture, namely paranoid schizophrenia. True, four represents but 1.07 per cent of all of the automobile factory workers, but it also represents 26.67 per cent, or slightly more than one-fourth of all of the Russian automobile factory workers.

Perhaps the question arises in the minds of some as to why the writer has selected paranoid schizophrenia cases as the material for Tables 4 and 5 respectively. The reason should be quite apparent. When it must be remembered that all of the schizophrenic psychotic types were considered, the manic groups, alcoholic, syphilitic, epileptic, somatic, mentally deficient and all other encephalopathic groups, that one psychotic picture should so predominate as to crowd into the background all of the others, the reason for selection of paranoid schizophrenics for these tables must be quite obvious.

TABLE VI. AUTOMOBILE FACTORY WORKERS
DISCERNIBLE TRAUMATIZATION

(Number of Cases—371)

Traumatized by Lay-off	41
Traumatized Injury and Other Types of Trauma.....	150
Total Discernible Trauma.....	191
Percentage of Total Discernible Trauma....	51.5%

Table VI shows as nearly as is possible the actually discernible cases of trauma in the automobile factory workers' group. 191, or 51.5 per cent of the group, gave definite evidence of trauma. Included in the term trauma were actual physical injury, alcohol, illnesses and psychic trauma occasioned by being laid off from work.

Especial attention will be called to Tables IV, V, and VI, respectively, in the final summation.

It is incumbent upon each community to care for its mentally afflicted, or ill. However, the community's problem is barely started when it pays a certain stipulated sum to aid in maintaining one, or a number, of its members, in a mental hospital.

When the committed individual is the only or principal wage-earner in a family, the additional burden upon the community of necessity increases manifold times. Table VII reveals to a partial degree this addi-

tional responsibility thrust upon the community.

TABLE VII. TOTAL GROUP—690

Single	328
Married	286
Widowed, Separated or Divorced.....	76
Child Dependents of married group.....	771

The reason the writer stated that Table VII reveals only a "partial" picture is because there was no accurate way of knowing how many of the single group supported families nor how many of the divorced, separated or widowed group supported families before hospitalization.

It is, therefore, quite obvious that instead of our basic group, namely 690 patients, to be cared for by the community, we actually have well in excess of 1,461, for the 771 dependents listed were "child" dependents. The number of mothers left dependent upon the community was not included in the 1,461 because a certain percentage of the mothers would be forced to seek some type of employment, however slightly remunerative that employment might be.

TABLE VIII. DEPENDENT CHILDREN—NATIVITY
(Total—771)

<i>Dependent Children</i>	No. Cases	Per Cent of Total
Michigan born	93	12.06%
Southern States	118	15.3 %
Remainder of U. S.	94	12.19%
Foreign born	466	60.45%

Here we find a situation presenting itself in which the figures bring out astounding information. Of a total of 286 married patients, 132, or 46.2 per cent of the total married group, were of foreign birth, while 154, or 53.8 per cent, were born in the United States; yet this 46.2 per cent foreign group contributed 466 dependent "children," or 60.45 per cent of the total dependent children group, while the state of Michigan contributed only ninety-three dependent children, or 12.06 per cent of this particular group, less than one-fifth as many as the foreign born married patients contributed.

TABLE IX. LUETIC GROUP

(150—21.74 per cent of Total Group)

<i>Married</i>	85	57.67%
American born, married..	55	64.71%
Foreign born, married...	30	35.29%
Child dependents	140	
<i>Total American born</i>	93	
Michigan born	24	
Southern States	32	
Remainder of U. S.....	37	
<i>Total Foreign born</i>	57	

In Table IX are merely compiled some statistics concerning 150 patients in the total of 690 who were committed to the institution in whose cases some form of chronic syphilis was the cause for commitment and whose subsequent examination attested to the fact that they were afflicted with some form of chronic syphilis of the brain or central nervous system. It is noteworthy here that of the total number of American born patients falling in this group, namely ninety-three patients, only twenty-four were natives of Michigan, or only 16 per cent of the total luetic group.

This table was included in view of the present educational campaign being carried on in an endeavor to educate the public concerning syphilis.

Of what value are all of the foregoing statistics and tables?

The writer cannot help but feel that certain obvious questions and answers present themselves for consideration.

Let us first consider the information submitted from a purely statistical standpoint. Table II, or the Nativity Table, reveals Wayne County and the State of Michigan carrying a burden in a tax supported institution, to which burden the county and state themselves contribute only 20.28 per cent of the total group and only 35.4 per cent of the American born group. Table VIII reveals that, of the dependent children group, Wayne County and the state of Michigan contribute only 12.06 per cent of the total dependent children group while the dependent children group of the foreign born constitute 60.45 per cent.

It would appear then that Wayne County and the state of Michigan are bearing a tremendous burden which it is incumbent upon them to bear but which reveals itself as an acquired burden rather than a native one.

If this condition obtains in one city of our country, of necessity it obtains in other cities scattered throughout the length and breadth of the land.

Tables III, IV and V, purely psychiatric diagnostic tables, are perhaps the most interesting ones in this article.

They reveal the fact that the predominance of one particular type of psychosis, namely schizophrenia with paranoid implications forces any observer to either wonder or draw certain conclusions for himself or herself. Why are one-fourth of our total group of 690 patients presenting a psychotic

picture in which the outstanding feature is their sameness? Why is it that one-fifth of our total automobile factory workers' group presents a similar psychotic picture, namely schizophrenia with paranoid implications? Are we dealing with a peculiarly alike, comparably conditioned, homogeneously heritaged, identically environed group of individuals? Perhaps it is that we are.

We do find certain characteristics common to almost all of this group. We find that for the most part they have come to a large industrial city from a more or less rural community; from the plantations and cotton fields of the southern part of our own country or from the broad, placid farm lands of central Europe, Poland and the Balkan States.

Let us take a typical case of one of our patients from central Europe. He is born into a family of perhaps the poor working peasant type, whose heritage for countless generations has been to till the soil, or at least to live a quiet, evenly-modulated type of life. Even though relatively poor, measured by the yardstick used in this country, they still, for the most part, have a small farm or parcel of land belonging to their family, which has been handed down to succeeding generations. To this individual, that small piece of property symbolizes a certain amount of independence, perhaps the only symbol of independence. However, the lure of so-called better living conditions and increased wages attracts this individual to America. He hears of dynamic Detroit or bustling Chicago or any one of countless other cities. He comes here, obtains employment in an automobile factory amid strange surroundings, new people and an unfamiliar type of work.

He makes what mistakenly is interpreted as being a good adjustment to a new situation. He remains industrialized for several years in the same place of employment. He saves a little money and puts it into a small piece of property, perhaps building a garage type of home on the back section, having in mind a more permanent type of dwelling to build later to care for his rapidly increasing family. He is a robust, healthy individual when he starts. Perhaps a slight period of depression comes along. Perhaps times remain uniformly pretty fair. He is making regular payments on this property so symbolic to him.

However, there is a lay-off from work,

perhaps a short one for inventory, perhaps a longer one for changing models or because production orders are filled. Here, a definite trauma ensues. He has been making money enough to meet his current obligations while employed; perhaps he has been sufficiently provident to have saved a few dollars. With no income coming in but a very short time elapses before his little bank account is depleted. He cannot now meet his current obligations or his payments on his home. What happens? He either loses his home or is seriously threatened with the loss of it. The worry about losing his all and his inability to provide adequately for his family cause a tremendous psychic trauma.

He may be called back to work before the worst comes, namely actual loss of his property. Production is going now at a tremendous rate of speed, day shifts, night shifts, with thousands of cars manufactured each day and tens of thousands of men endeavoring to keep up a heart-rending pace. But fear has left its stamp on our individual. He knows how closely he came to actually losing his home and he realizes now just how close his escape was, how very easily he might have lost everything. He now finds more things of which he feels he has occasion to fear. "Supposing I lose my job? Supposing I sustain some disabling injury? Supposing I do not please my boss or in some way displease or offend him?" Cannot you feel these thoughts harassing, worrying this individual? Perhaps his work does fall off because of the tremendous load he is endeavoring to carry. He comes to fear industry—it is so all-powerful, so overwhelming he cannot comprehend it. He only knows what it is capable of doing to him; he fears what it may do to him. Is it any wonder this individual, whose heritage through many generations has been to till the soil, to be the village blacksmith or the town shopkeeper, should break under this fearful strain? Is it not to be marvelled at if he does not break?

The writer does not care to, nor would he be sufficiently temeritous, to quarrel with the psycho-analytical school of thought in their dynamics of various types of psychosis, let us say the formation of paranoid delusions in the schizophrenic. Do we have to go to psycho-analysis to find a perfectly reasonable, sane, scientific explanation in this case or comparable cases? Is there any one force in the world so devastating in its

effect upon man as fear? What force so impelling as fear? What stimulus so frightful in its consequences?

Let us not fail to see the forest because of the trees! Projection mechanisms, distortion mechanisms, defense escape mechanisms, all of the other isms, fixations, complexes and all of the gamut truly have a part in our picture of paranoia and paranoid thought, but there are times when the simplest explanation is the truly applicable one.

A panacea! Who can prescribe one? Partial solutions, some workable at the present time, others impossible under present existing conditions, present themselves.

To institute remedial measures at the very fountain head of the present difficulty would take many, many years of sustained endeavor. This is especially true if one adopts the view that the primary reason for so many mental upsets among this industrial class is because of inability to adequately adjust under situational factors to which they have been poorly conditioned.

Just as eventually it is to be hoped that in our school educational system every child shall have the advantage of examinations and observation by trained observers, namely psychiatrists and psychologists, having in mind some guidance or suggestive influence directing the child toward that vocation in life for which its potentialities and capabilities peculiarly or best fit it, so eventually we may look forward to the same principles being applied to our industrial educational system. Perhaps we will then find fewer round pegs endeavoring unsuccessfully to fit themselves into square holes.

The poorest musician may have made the most excellent cabinet maker, or the inadequate production line man may have been a splendid stock-room clerk. Some may consider this partial solution far too Utopian in its fundamental aspects. However much this plan may have to be modified, it is a step forward in the right direction.

There will be many who will feel that adequate adjustment would be almost impossible for anyone under present existing conditions. They will see the picture in this light: an individual traumatized physically and mentally for seven or eight months of each year by being driven at terrific rates of speed, then being traumatized mentally for four or five months by being laid off, with its accompanying worry as to ability to meet necessary expenses and the uncertainty of

when work will be available to him again and the additional fear of the unlimited power of industry, power so unlimited as to be incomprehensible to this individual.

Such a viewpoint has certain merits. But remedial measures can be instituted and that situation rendered more innocuous.

A thought comes to the writer's mind that perhaps a plan could be evolved whereby industry, either of its own volition or under some other gentle suasion, could endeavor a plan whereby their production could be pro-rated through ten or eleven months of the year, during which months their employees could be worked at a rate of speed sufficiently reasonable so as to cause little or no trauma, or at least a minimum of trauma. Think of the different attitude such a plan would engender among thousands and thousands of not only actual employees, but among their families also. Think of the different community feeling, the spirit of friendliness possible between neighbors, not possible at the present time! A new type of employee is thus created; he is not so fatigued at the end of the day that he finds no time nor capability for family recreation and he can tackle his job on the next day with a zest and a spirit formerly foreign to him. Gone is the feeling of insecurity, and a feeling of kindliness, friendliness and understanding supplants the for-

mer feeling of fear of industry's power. A happier employee, therefore a more valuable one to his employer, is created—and a happier family in a happier community.

Seed of dissension, mistrust, suspicion and hatred cannot thrive, cannot even take root in such soil. A new era has been born, new for industry, new for the employer, new for the community.

Mental upsets are not the products of happy, healthful, sane living. They are the products of worry, fear, insecurity, suspicion, physical trauma and feelings of futility and of inadequacy. Is it not reasonable to believe that we may expect a diminution in the number of unfortunates to be cared for in various mental hospitals and an ever greater diminution in our various welfare and relief rôles?

The writer has tried very hard not to color this article by his own personality or feelings. As a scientific treatise, facts and figures must speak for themselves. He only hopes that in addition to acquainting you with the foregoing statistics he may have further stimulated constructive thought along some remedial lines or toward some solution.

To the Moses who can lead us out of this present wilderness of social and industrial maladjustment into a Canaan of understanding, and healthful, sane living, society will owe an undying debt of gratitude.

PROBLEMS IN SEVERE HYPERTHYROIDISM*

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Patients with severe forms of any disease usually require special consideration and in this regard those with severe hyperthyroidism present a particular challenge, since with the utmost in judgment and technical skill a great many of them may be restored to normal living. Purely on the basis of avoiding mortality, interest may well be placed upon two groups: (1) those having or likely to develop thyroid crisis, and (2) those in which the thyroid intoxication has produced or accentuated a pre-existing heart disease. These two conditions will be discussed:

Thyroid Crisis

Statistics show that thyroid crisis generally accounts for more than half of the deaths from goiter (Table I).

It is the rule that most of these deaths occur pre-operatively,¹⁰ before the patient

TABLE I.

	Per cent of goiter mortality due to thyroid crisis
Lahey Clinic ¹	40
Long Island College Hospital ²	60
Mayo Clinic ³	50+
University Hospital ⁴	70

can be improved to the point of even considering an operation. From this, it is evident that the treatment of thyroid crisis is

*From the Department of Surgery of the University of Michigan. Presented before the Surgery Section of the Michigan State Medical Society, Detroit, September 26, 1938.

most unsatisfactory; no specific measure is available and general supportive therapy usually fails to carry the patient through a severe reaction. To avoid thyroid crisis is most important.

Factors Precipitating Thyroid Crisis

From a review of fifty-one pre-operative deaths from thyroid crisis, Bayley² presented the precipitating factors, and these are well worthy of brief consideration here.

Crisis precipitated by extra-thyroid surgical procedures.—In six cases an elective operation other than upon the thyroid gland precipitated the crisis. These operations included a posterior resection of the rectum, a hysterectomy, a cholecystectomy and appendectomy, and a patient in whom all the teeth were extracted. The hyperthyroidism in these patients was mild, but its potential danger and the need for taking care of hyperthyroidism before elective procedures is well apparent from the fatal results. The occurrence of thyroid crisis after these operations refutes the old belief that manipulation of the thyroid gland at the time of a thyroidectomy is the cause of thyroid crisis. No such manipulation is needed to stir up this severe complication.

Crisis precipitated by infection.—Eight of the fifty-one patients had an acute infection as the factor precipitating the crisis. A severe sore throat with marked discomfort occurred in three of these and the sedative given failed to provide rest.

Crisis precipitated by therapeutic and minor diagnostic procedures.—In nine of the 51 cases a simple procedure—a paracentesis, a thoracentesis, a spinal puncture, a basal metabolic rate determination—instituted the storm. That a metabolic rate determination may be the upsetting factor shows what a narrow margin of safety exists in many of these patients and how disturbing a routine procedure may be in individual cases.

Patients in whom earlier or more intensive treatment may have averted crisis.—Nineteen of the fifty-one cases were in this group. In seventeen of these it was apparent that rest was not obtained, the patients having spent several consecutive sleepless nights before the crisis began. The records showed that sedatives were given in considerable amounts, but that they failed to produce

results. With the insomnia, apprehension and hyperactivity led to the crisis.

Cases admitted in crisis.—Eight of the fifty-one patients had well developed crisis upon admission to the hospital. More than one of these first entered the Neurology Service, because they were irrational or comatose when first seen. All were dehydrated and emaciated, and death usually came within three or four days.

The precipitating factors of the previous paragraphs emphasize some of the difficulties encountered in the care of patients with severe hyperthyroidism. The important lesson is that hyperthyroidism should not be permitted to progress to the severe stage. The physician must recognize the potentialities of this disease and adopt suitable treatment in its incipency.

In dealing with severe hyperthyroidism certain measures have been found to be most effective. These can be discussed under: (1) the recognition of severe hyperthyroidism, (2) careful pre-operative preparation, (3) multiple stage operations, and (4) good postoperative care.

Recognition of Severe Hyperthyroidism

In dealing with this condition, to be forewarned is to be forearmed, for one must early recognize that severe hyperthyroidism exists and then institute proper care. An important decision to make is whether or not multiple-stage operations should be done, since it is very easy to do too much surgery on these patients. Lahey's⁶ opinion in this regard is well worth quoting:

"Our formula for low mortality rates has always been to assume that if a patient died after subtotal thyroidectomy he would probably not have died had we performed a two-stage subtotal thyroidectomy, after a right first-stage subtotal hemithyroidectomy, sending the patient home for six weeks and then having him return for a left subtotal hemithyroidectomy. Should a patient die after a right first-stage hemithyroidectomy, we contend that patient would probably not have died after a preliminary pole ligation, and, should a patient die after preliminary bilateral pole ligations, the patient would probably not have died had but one superior pole been ligated and the other pole ligated a week later."

Experience with severe hyperthyroidism soon convinces one of the significance of this opinion, and the publications of Lahey and his associates in this regard are commended.

Evidence leading to the recognition of severe hyperthyroidism and to the decision

for multiple-stage operations can be logically considered under evidence on admission, evidence during the preparatory period and evidence during the operation.

Evidence upon admission.—Lahey⁷ has emphasized the importance of the examination at this time. The patient has had no rest and is not under sedatives, and the findings are at their worst. The observer here has the best opportunity to decide on the seriousness of the disease.

Tachycardia has been stressed as the best single standard of severe hyperthyroidism. With a pulse rate of 120 per minute, more than a moderate degree of hyperthyroidism should be suspected, and if above 130, severe degrees are present and the need for multiple-stage operations strongly suggested.

Weight loss of 30 to 50 pounds signifies an increase in metabolism of immoderate amount and also of long duration. Many patients with hyperthyroidism have a voracious appetite which permits only a slight loss of weight. With severe disease the patient often cannot keep up with his metabolic needs, and in others, anorexia sometimes occurs and weight loss becomes even more marked. The mortality is high among patients who have lost considerable weight.

The duration of the disease is important. The human body cannot stand hyperthyroidism for long periods without irreparable damage. Energy reserves are reduced, nervousness is more marked and uncontrollable, and pathologic conditions become chronic—such as patchy chronic parenchymatous interlobular hepatitis described by Weller.¹⁴ Of the thirty-seven deaths from thyroid crisis reviewed by Ransom and Bayley,¹³ the average duration of the thyrotoxicosis was twenty-eight months. Eleven of the patients had a history suggesting hyperthyroidism for ten years or more. With long duration, the breaking point is imminent and every strain should be lessened or divided.

The development of a psychosis is always a bad sign in hyperthyroidism. Hallucinations, incoherent speech and delirium are such common features of thyroid crisis that if an actual crisis is not present with these mental aberrations, then it is impending and every effort should be made to ward off a severe reaction.

Advancing age plays a part. With increasing years caution is needed, for the older patients cannot stand strains that are

tolerated by the younger. Adolescent patients with thyroid crisis sometimes survive; the older ones invariably do not. Age, then, demands a closer consideration of all the factors of caution.

The basal metabolic rate is not a good indicator of the severity of the hyperthyroidism. Often the initial rate is too high because the patient is new to and afraid of the test; consequently, subsequent tests are more revealing. A second fact is that, with patients who later develop thyroid crisis, the basal metabolic rates are often within the moderate range of +30 to +50 per cent. As a true indication of the severity of the hyperthyroidism less reliance should be placed on this test than on the factors of tachycardia, weight loss, duration of the disease, psychosis, and age of the patient.

Evidence during preparatory period.—Failure of the patient to respond to preparatory treatment is an important sign that serious hyperthyroidism is present. This may be shown in several ways. The patient may continue to be hyperactive and easily excited. There may be a failure to gain in weight in spite of a high caloric intake. The pulse rate and the metabolism may not decrease, in some cases it may even increase. Lerman⁸ found that the mortality in patients who were iodine-resistant, that is, who failed to show a decrease in metabolic rate with pre-operative iodine therapy, was 24 per cent, compared to 1.1 per cent in the patients who satisfactorily responded to iodine. As a further evidence of failure of response the patient may become irrational or may develop gastro-intestinal disturbances, diarrhea, nausea and vomiting. All these features are further indications of a severe hyperthyroidism and they call for caution in the operative treatment, which means dividing the operation into multiple stages.

Evidence during operation.—It is always better to have a definite idea of just how much surgery is to be done, before the operation begins, since at the time of the operation one may be led astray by the patient's seemingly good condition under the narcotics and anesthetic, and thus do too much surgery. There are, however, a few instances in which a definite opinion is difficult to make pre-operatively. While the condition of any patient during an operation is

always important, it is doubly so in these patients, since various factors are looked for and quickly used as indicators for shortening the procedure. A progressively rising pulse, 150 per minute and above, is a sign for caution, as is also a widening pulse pressure. Cyanosis should be particularly avoided, since these patients react very poorly to long periods of anoxemia. If the anesthetic has not been satisfactory, if the patient coughs and struggles, then the operation should be shortened. If technical difficulties have seriously prolonged the first half of the operation or have resulted in excessive hemorrhage, a resection of the second lobe should be left until later. Multiple-stage operations lengthen the period of treatment, but, most importantly, they reduce mortality.

Pre-operative Preparation

The need of the patient with severe hyperthyroidism for quiet and rest cannot be overemphasized, since all other forms of therapy will fail if this is not obtained. Sedation of some degree is almost invariably needed, and in this regard the barbiturates as a group are most satisfactory. For the extremely restless patient, paraldehyde in moderate doses is quite effective, and occasionally even pantopon or morphine is needed.

Fluid intake should be kept at a minimum of 3,000 c.c. daily. The diet should be of high caloric value and rich in carbohydrates, the latter needed to maintain glycogen reserves, which are easily depleted in these patients. When anorexia is present, intravenous glucose is a valuable adjunct therapy. It is our custom to administer iodine in the form of Lugol's solution 0.3 c.c. three times a day to all patients having hyperthyroidism. This is purely a procedure preparatory to the operation, since it is known that iodine therapy over long periods of time is distinctly harmful. In the study of Potter and Morris¹² prolonged iodination was considered to be productive of "iodine-resistance" in 40 per cent of the patients.

Digitalis is given to patients with congestive heart failure and those with auricular fibrillation. Basal metabolic rates are taken every five days after admission. Special studies include an examination of the larynx for evidence of recurrent nerve palsy. Occasionally, a paralysis will be found

even when there has been no previous thyroid surgery. Roentgenograms of the chest are taken for evidence of substernal goiter, tracheal deviation, and tuberculosis. Some of the features of hyperthyroidism are similar to those of tuberculosis, and the possible error should be avoided. An electrocardiogram is taken on all patients having heart disease.

Multiple-Stage Operations

These procedures are life-saving measures to the patient with severe hyperthyroidism. But it must be remembered that they are not necessary for the average case of hyperthyroidism, and are to be adopted only with good reason, such as the indications discussed under "the recognition of severe hyperthyroidism." In decreasing order of magnitude, one progresses from a subtotal hemithyroidectomy down to a single superior pole ligation. Certainly, when activation is intense, when the patient is losing ground in spite of the most careful preparatory treatment, then the least formidable operative procedure, a unilateral superior pole ligation, should be done. The time between pole ligations is usually seven to fourteen days. Four to six weeks later, a right subtotal hemithyroidectomy is done, and after the same interval a left subtotal hemithyroidectomy. When a multiple-stage program has been decided upon, and progress during the preparatory period has been fairly good, then one commonly starts the operative treatment with a subtotal hemithyroidectomy. During the interval of 4 to 6 weeks, the patient is usually sent home on supervised treatment similar to the preparatory treatment. Progress at home is generally excellent and the subsequent left subtotal hemithyroidectomy is commonly uneventful. Recently, we have employed the "short-interval" of seven to ten days between the subtotal hemithyroidectomies and have found it to be quite satisfactory. McGraw⁹ discussed the merits of this interval compared to the four to six weeks period, pointing out the latter to be more expensive and occasionally failing because of lack of co-operation by the patient.

Postoperative Care

The postoperative period for many patients with hyperthyroidism is a critical time in which efforts are mainly directed towards

avoiding thyroid crisis. Fortunately, the premonitory signs of an impending crisis are rather definite, restlessness, a rising temperature and pulse rate being important indicators of trouble. One should not wait for these signs to develop but should ward them off by proper treatment. Sedation is needed to keep the patient quiet, and, for the first day or two, control of discomfort is also necessary. For this period, pantopon in 0.022 gm. ($\frac{1}{3}$ gr.) doses (H) works well in our hands. No routine order should be written, but amounts should be given to obtain rest. This means frequent visits to the patient by some responsible member of the staff. Even if respirations are decreased by the frequent use of this opium derivative, oxygen can be given to keep the patient a good color. The barbiturates are resumed on the second postoperative day. Occasionally, stronger sedation is required, and for this paraldehyde in small amounts rectally is an admirable drug.

The development of fever in the immediate postoperative period by patients with hyperthyroidism is a strange phenomenon which does not appear so unaccountably in any other group of patients. It has been likened to the fever occurring with liver shock, and, while disturbance of liver function is known to occur in patients with hyperthyroidism, it has been impossible to prove that the fever is due to liver damage.¹⁰ In any event, a high fever is to be avoided and the liver is to be protected. Since the fever in hyperthyroid cases tends to rise rapidly, it is our custom to record the patient's postoperative temperature every one or two hours, depending upon the severity of the disease. In this way, we become aware of a rising temperature and take measures to keep it within moderate limits, which is 100.0 to 101.0° F. To reduce fever, ice bags are first applied; if necessary, an alcohol sponge is given. If these are not sufficient, then 1.3 grams of acetylsalicylic acid are given by mouth, and may be repeated in one hour. The cooled atmosphere of the oxygen tent is a valuable aid⁴ in keeping postoperative temperatures within moderate limits. Also, the maintenance of a high degree of oxygenation by this procedure is of such great benefit that all patients with severe hyperthyroidism are placed in an oxygen tent immediately upon their return from the operating room.

A plentiful supply of carbohydrates is important to the postoperative patient with hyperthyroidism for at least two reasons. In the first place, these patients deplete their glycogen reserves quickly, and, secondly, they show rather high degrees of impaired liver function,^{5,10} particularly in the immediate postoperative period. In general the patients with severe hyperthyroidism cannot be depended upon to ingest sufficient carbohydrate by mouth for at least two days, so one is well advised to give intravenous glucose continually during this time. We have used 10 per cent glucose in distilled water for this purpose and generally administer from 150 to 200 c.c. per hour. Studies¹⁵ have shown that at least 90 per cent of this dextrose is retained, and that the water remaining is available for all purposes.

On the day of the operation, 2.0 c.c. of Lugol's solution are given intravenously by simply adding it to the ten per cent glucose. On succeeding days, 0.3 c.c. are given by mouth three times daily. Laryngitis and tracheitis are frequently troublesome in the immediate postoperative period and are usually ameliorated by menthol and steam inhalations. In several instances of thyroid crisis, pulmonary edema has developed¹³ with the raising of considerable amounts of a blood-tinged frothy mucus. In two cases, frequent aspirations kept the trachea clean and greatly aided the patients' recovery. Other medications, such as digitalis, are continued postoperatively as pre-operatively.

In final consideration of postoperative care, the value of good nursing is to be commended, since the benefit to be derived from such skillful service is inestimable, particularly when dealing with the apprehensive patient. I have seen lives saved by an intelligent nurse obtaining the confidence of the patient and leading her quietly through the trying hours, whereas previously narcotics and sedatives had to be forced to a dangerous level.

The Thyrocardiac

This term is used to denote the patient with thyroid disease whose symptoms or findings are predominately cardiac in nature. With increased metabolism there exists some increase in circulatory demands, and in time this results in some enlargement of the heart, most of which is due to car-

diac dilation and generally only slightly to cardiac hypertrophy. Some further cardiac dysfunction is thought to be due to an acute thyroid toxemia.¹ Under forty years, the effect of the increased cardiac load and the toxemia are fairly well tolerated, but in older individuals serious heart trouble is often instituted or some pre-existing heart disease is exaggerated. Cardiac pathology may have been present from previous rheumatic fever or there may be varying degrees of hypertensive or arteriosclerotic heart disease. The stimulus of hyperthyroidism upsets the reserve and the signs of decompensation appear. Auricular fibrillation is extremely common in this group, a few summaries estimating this arrhythmia to occur in 85 per cent of all cases of congestive heart failure with associated hyperthyroidism. Conversely, when auricular fibrillation is present, one should strongly suspect hyperthyroidism and carry out suitable studies.

The treatment of these elderly patients is far from hopeless. One should continually bear in mind that although their reserve is limited, they can stand considerable if it is not all applied at one time, that is, moderation is needed. The features discussed under pre-operative treatment are applicable here. Rest, Lugol's solution, a high caloric diet and digitalis are needed. A mercurial diuretic may occasionally be necessary to handle edema. Glucose solution to provide a high carbohydrate intake is valuable, with the caution to keep the total fluid intake at a moderate level. Multiple-stage operations are important in the care of these patients. Usually, pole ligations are not needed, since the degree of hyperthyroidism is generally not excessive, but a right hemithyroidectomy, followed by a left hemithyroidec-

tomy will often do wonders for the more seriously ill members of this group. In about 90 per cent of the patients with auricular fibrillation, this arrhythmia disappears within a week after the operation. Occasionally, quinidine is needed to set the rhythm right. The remaining patients continue to fibrillate, but are much improved and get along well for some time.

In conclusion, one can reemphasize that in the care of patients with severe hyperthyroidism, as in the care of patients with other serious diseases, consideration of the special problems presented goes a long way towards avoiding the serious complications and leads to a reduction in the mortality and to the returning of more individuals to a life of normal activity.

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LEAD IN DRINKING WATER

Instances of lead poisoning resulting from dangerous concentrations of lead in water from newly installed water pipes and plumbing fixtures have been reported, according to Dr. Carey P. McCord, Director of the Bureau of Industrial Hygiene of the Michigan Department of Health. Recent studies, Dr. McCord states, indicate that the most common source of lead in this water is from lead-containing "dopes" that are used for sealing the pipe joints, and he urgently suggests that the use of such "dopes" be abandoned and one of the several non-lead containing materials be substituted. The quantities of lead found in water that stood in the pipes of new installations for some time ordinarily were not sufficient to produce illness in adults consuming average amounts of water each day, but these same quantities were capable of producing digestive disturbances in infants. However, should adults drink large quantities of such lead-contaminated water for a period of time, harmful effects to health might result.

To insure the use of water free from harmful amounts of lead, Dr. McCord advises that, during the first month after new plumbing equipment is installed, water should be allowed to run from the tap for a few minutes each time before it is drawn for drinking or culinary purposes.

LOW BACK PAIN

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Low back pain has been called rheumatism, lumbago, arthritis, and many other things. The most satisfactory general term is still *low back pain*. In recent years, this has been split down into more specific entities which have been worked out on definite clinical, anatomical and roentgenological findings. These specific entities have definite diagnostic terms and their treatments have been carefully and satisfactorily planned.

The most valuable aids in establishing a diagnosis of diseases and injuries which produce low back pain are a detailed history and a routine systematic physical examination.

A typical history is briefly as follows: A vigorous young man in his thirties felt something "snap" in his lower back while lifting a heavy weight from a bending position. He immediately experienced pain in his lower back. Sometime later he developed pain in the buttock radiating down the back of one thigh and leg to the outside of his foot. Coughing or bending increases the radiating pain. There may have been two or three previous attacks, the first ones relieved by rest in bed varying from three to ten days. The last attack has persisted.

A history of this sort raises the possibility of merely a simple sprain of a lumbosacral joint that has not received adequate rest. Or it may fit into any of the low back pain entities which can only be determined by a very careful and complete physical examination, including a search for foci of infection, neurological tests, certain laboratory tests as well as a complete orthopedic checkup in the standing, sitting, as well as the prone position.

There have been many articles dealing with the detailed history-taking and examination of patients with low back pain. Therefore, I feel any consideration of that in this paper, to be merely superfluous. The most recent series of articles is in the December, 1938, issue of the *American Journal of Surgery*. Those interested would do well to read these, especially the article "Examination of the Injured Back," by Dr. John D. Ellis.

I now wish to take each of the following various low back entities in turn and give a few of the diagnostic points of each, as well as the treatment for them.

1. Sprains
 - a. Lumbosacral
 - b. Sacroiliac.
2. Functional decompensation or back strain.
3. Degeneration of the intervertebral disc:
 - a. Herniation of the nucleus pulposus
 - b. Fragmentation of the disc.

4. Hypertrophy of the ligamentum flavum.
5. Contraction of the iliotibial band of Ober.
6. Congenital anomalies.

Sprains

Lumbrosacral joint disturbances are by far the most common. Acute sprains of the articulations and joints of this area occur most commonly in the younger adults following heavy lifting or increased athletic activities. Muscular individuals who have been at ease for a period of years and allowed their muscles to lose some of their strength; who then attempt some rigorous exercise or work commonly sprain (stretch or tear) the ligaments about the lateral articulations of the lumbosacral spine. This is brought about by rotation of the spine due to the rigidity of the anterior longitudinal ligament of the spine which, on the average, has a tensile strength of over 400 pounds. This acts as a stiff support which allows the spine to rotate about it rather than allow it to "cave in."

Diagnosis of lumbosacral sprain is relatively easy by the routine examination. There is a flattening of the lumbar curve, muscle spasm, limitation of motion on forward flexion as well as toward the side of the lesion, tenderness directly over the joint affected, and a frequent list toward the side affected.

Single straight leg (Lasègue's sign) raising is moderately free but double straight leg raising is markedly restricted and painful. Finally, routine back treatment of bed rest on a firm mattress, hot fomentations to the back, folded sheet in lumbar spine, knee flexion and sedatives usually relieve the pain completely. Adhesive strapping after a few days, followed by a front and back pad brace is usually sufficient in the private cases. In compensation cases, longer bed rest followed by a plaster body cast is the

most satisfactory treatment. Physiotherapy is of great importance throughout.

Sacroiliac sprains are not as common and are more apt to occur as a result of more severe trauma. Diagnosis here is by tenderness over the joint itself and by limitation of single straight leg raising (Lasèque's sign) on the side affected, whereas the other leg and double leg raising is much less painful. The treatment is the same as above, but a canvas belt with a pad in the back of it is used instead of the front and back brace of Goldthwaite.

In both these conditions, manipulation through a series of maneuvers is carried out to reduce any possible subluxation and break up any adhesions. In a small percentage of cases, these maneuvers give instantaneous cures.

Functional Decomposition or Back Strain

These are terms that represent an imbalance between the capacity of the structures of the back and the physiological demands made upon them. This implies an insufficiency of structure and resultant disability. This condition occurs in debilitated or generally run-down younger people and in obese, flabby elderly people. Poor posture with increased lumbar lordosis, rounded dorsal kyphosis and pendulous abdomen along with impaired muscle tone stamps the individual at first glance as one who expects too much of the ligaments and bones of his back.

The symptoms are generalized low back pain and tiredness, often associated with general fatigue. At first the pain is generalized and associated with stiffness on arising after resting. Later the pain localizes and may involve the lumbosacral area or a sacroiliac joint. This may go on to a true arthritis.

Treatment concerns itself with general upbuilding of the muscular system by exercises and the reduction of obesity by diet. Foci of infection are eradicated. Generally a low metabolic rate and low blood pressure are present, as well as secondary anemia. Thus, thyroid, iron and vitamins are given. Adhesive strapping, reinforced corsets or even body casts are occasionally necessary.

Degeneration of Intervertebral Discs

Degeneration of the intervertebral disc occurs in two ways: (a) Herniation of the

nucleus pulposus; (b) fragmentation of the disc.

Herniation of the nucleus pulposus.—This occurs either through a break in the cartilaginous plate into the adjacent vertebral body (Schmorl's nodule), which is clearly shown by x-rays, or it may break through the annulus fibrosus into the spinal canal, causing nerve pressure and referred neurological changes down one leg. In this latter case the diagnosis should be suspected in persistent back patients who have sensory changes of the leg and foot in conjunction with absent Achilles' tendon reflex on the involved side. Spinal fluid total protein of 45 mgs. per c.c. or over is strong evidence of intraspinal pathology. Diagnosis is confirmed by intraspinal lipiodol studies under x-ray control, followed by laminectomy; which is the treatment as well as confirmatory diagnostic test. Spinal fusion in these cases is usually advisable.

Fragmentation of the disc or cartilaginous plate: This occurs in later life and granulation tissue grows from the adjacent vertebral body into the disc. This portion of the disc is later replaced by fibrotic tissue. These degenerations, in themselves, are not painful, as there are no nerve endings in the disc (but there are nerve endings in the ligamentous tissue of the spine).

This degeneration of the disc results in narrowing, bringing the vertebral bodies closer together. If the posterior articulations do not slip past each other, a kyphosis is produced; a condition usually encountered in the dorsal or upper lumbar region. In the lower lumbar region thinning usually produces a subluxation of the apophyseal or posterior articulations, resulting in the following possible causes of localized or referred pain:

(1) Strain upon the ligaments of the articulations.

(2) A disturbance in the relationship between the articular surfaces that thrusts the lower vertebral body forward beneath the one above, so the intervertebral foramen is decreased in axial and also in anteroposterior diameter. This results in a fibrosis about the bundles which make up the nerve root, giving rise to symptoms of radiculitis.

(3) In extreme cases there may be actual bony impingement between the tip of the articular process and the pedicle above or lamina below, resulting in pain. This is

recognized by oblique x-rays, best made with the patient standing. Radiculitis is diagnosed by symptoms and signs along the nerve roots involved, as well as by x-rays. Treatment is rest either by bed, back brace, body cast or by spinal fusion.

Hypertrophy of Ligamentum Flavum

Hypertrophy of the ligamentum flavum needs little comment. Symptoms and signs are about the same as those of herniation of the nucleus pulposus. Diagnosis is made by intraspinal lipiodol roentgenographic studies and laminectomy. Treatment is excision.

Contraction of Iliotibial Band of Ober

Contraction of the iliotibial band and tensor fascia femoris muscle of Ober is not of great importance. The cases of low back pain that have the signs of this contracture are few, and, in most cases, the positive findings disappear on rest, manipulations and stretching exercises. The cases, in my experience, requiring operation are rare. Those patients that have refused operation did as well as those submitting to the extensive fasciotomy.

Congenital Anomalies

Congenital bony anomalies are not in themselves a cause of low back pain, but they predispose to a weakness of structure so that the ligaments are more easily strained or sprained.

Congenital anomalies of the piriformis muscle with pressure on the sciatic nerve are not apt to be diagnosed in the living patient.

Conclusion

Approximately 5 per cent of the low back pain patients receive surgery. There is another 5 per cent that should have surgery but have not because of refusal to undergo the operative procedure. About 90 per cent of low back pain cases are treated satisfactorily by conservative methods.

I have not mentioned sciatica. I believe true sciatica in the sense of a primary neuritis of the sciatic nerve to be so rare that it is not to be considered. The so-called sciatic pain is a referred pain from pathological conditions in the muscles, ligaments and joints of the lumbosacral and sacroiliac regions. The sciatic pain disappears on treatment of the pathology involved.

NERVOUS FACTORS INVOLVED IN SKIN DISTURBANCES

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This is a dangerous subject because it borders on the mystic and is at present so often a tool of the pseudo-scientist. It is a field which should be approached not from the old viewpoint of an alibi for ignorance or an excuse for the failure of treatment but studied with the hope of better understanding and improved therapeutic results. There is a definite basis on anatomical and physiological grounds for the contention that actual organic lesions of the skin may be produced by disturbances of the nervous system and its coördinate system of internal glands.

Man is a combination of trillions of single cells associated in colonies and tissues, or specialized in organs, or organ systems for functional efficiency. Some means of coördination of the activities of these various groups is necessary. Chemical communication through the body fluids occurs and is evidenced by the present knowledge of the effects of internal secretions. Whether any direct cell to cell interrelating function is possible is debatable. The essential coördinating agency of which we have any

knowledge is the nervous system. The life functions, assimilation, respiration, circulation, temperature control, and so forth, are maintained by an autonomic system of communication. This consists of nerve endings and fibers which connect the various viscera and the skin to nerve ganglia located in groups near the viscera or in the spinal cord and the subthalamic areas. Two groups of fibers are organized into systems, namely, the cranio-sacral and thoracico-lumbar, or, as they are sometimes called, the sympathetic and the parasympathetics. The two component systems are antagonistic

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and tend to balance each other just as the antagonistic voluntary innervation of muscles is balanced. The secretions of the endocrine glands may influence the functions of either of the component autonomic systems. When, by means of the intercommunication systems described, all of a man's tissues are in a state of harmonious function, we call this a condition of homeostasis.

Homeostasis may be disturbed by a number of factors. External stimuli transmitted reflexly disturb the function of all connected tissues; for instance, ice applied to a skin area of reference produces not only local vasomotor reactions but visceral vasomotor responses and in the hollow visci changes in peristalsis. Similarly, morphine injected in an organ's skin area of reference relieves pain more promptly and efficiently than when injected into the triceps muscle. Stimuli, if frequently repeated without sufficient rest periods, set up an increased irritability in the coördinating centers so that they respond to a stimulus usually below the threshold of response. The stimulus may of course be internal as well as external; for instance, a duodenal ulcer producing not only reversed peristalsis but changes in the skin reference field. The reflex system operates in either direction. The threshold of response may be further lowered by conscious attention; that is, a perception of a stimulus may be increased as much as fiftyfold. In this state sensations not ordinarily registered on the cortex reach consciousness. The endocrine glands may disturb homeostasis and since they are directly responsive to emotions the latter play an influential rôle. An emotion is the psychic accompaniment of motor reflexes automatically set up by external or internal stimuli. The psychic state follows the motor response and does not cause it. We can not think without a motor activity. This has been demonstrated by asking an individual to think or read without talking and recording tongue movements by alterations in the pressure of an inflated balloon held in the mouth or by holding a plumbline with a weight swinging pendulum fashion and noting the change in its course produced by thinking "round and round." Muscular activity, although it may be very slight, occurs with every thought.

Disturbances of function as vasodilation, vasoconstriction or altered peristalsis may as an effect of such disturbances of home-

ostasis become so frequent that organic changes of a permanent character occur. Capillary walls thicken, changes in circulation and cellular growth occur. Organ deficiencies independent of the original functional disturbance then perpetuate and increase the original difficulty. Family histories seem to indicate that such deficiencies may become hereditary and the constitutional hereditary deficiencies which we so often see are possibly frequently a result of such mechanisms. Physiological tests show certain characteristic findings in this group. In studies of the chronic neurodermatoses by William Becker and his associates, a large number of individuals showed increased mental activity, an increased inflammatory index, increased erythema time, lowered blood pressure, neurocirculatory instability and hypersensitivity, usually polysensitivity, to skin tests.

A disease is a complex syndrome arising from the adjustment of the organism to changes in its environment. This adjustment is made at least in part through the coördinating activities of the endocrine and autonomic nervous systems. The picture of disease will then be colored by the condition of these systems. Further, other disturbances of environment than parasites or chemicals may initiate such adjustments and the resulting picture be indistinguishable. In parasitic skin diseases a general type of response will be evident but the physical changes as edema, leukocytosis, vascular permeability, and so forth, will be varied just as the subjective symptoms are by the coördinating activities we have discussed. The expert dismisses such variations but the tyro may be misled in his diagnosis. All the previous discussion is merely an attempt to explain and understand why we must treat the individual and not the disease. It is an attempt also to show the complexity of even what we consider simple diseases and the inadequacy of our present knowledge of their mechanisms. Such an understanding will help us to cure scabies and impetigo, as well as such etiologically obscure conditions as lichen planus, urticaria, dermatitis herpetiformis, pruritus of idiopathic origin, scleroderma and atopic dermatitis. These latter diseases have been shown to be associated in many cases with definite constitutional types which are related to nervous dysfunction.

Despite the limitation of our knowledge.

we still may offer certain therapeutic suggestions. Drugs may be used for systemic relief of nervous factors complicating skin disturbances. Atropin in its various forms seems most helpful, or combinations of atropin with ergotamine tartrate or with small doses of phenobarbital. In the type of individual with a hypotension, ephedrine or amphetamine sulfates, or combinations of these with barbiturates, seem indicated. Dosage should be graduated but pushed to the point of individual tolerance. Iodine or arsenic are helpful in a few instances. Endocrine products are not usually of much value, but in mild hypothyroidism, thyroid, or combinations of thyroid with ovarian or pituitary hormones, seem advisable, and at the menopause the established gonadal stimulating hormones are indicated. Much more important than drugs, however, is an attempt to improve the patient's mental state.

We should inquire into the occupation, avocation and familiar environment of the patient with persistent difficulty, rationalizing for him his modes and attitudes toward life's problems as far as possible. The patient should be taught the necessity of relaxation, and adequate rest should be insisted upon. This means the patient must be taught how to relax and that he must realize that he must have much more rest than an ordinary individual. Once the background is known, the discussions of troubles or symptoms should be prohibited. Relatives should be cautioned against talk concerning the difficulties and the patient

should reply to questions about his health as salutations and not as inquiries. Thoughts concerning difficulties or unpleasantness can gradually be shut out if the patient will substitute a memory of some pleasant period of his life and elaborate his memories of that period each time an unpleasant thought occurs. Worry is a habit learned by practice, and if practicing is stopped, the habit is soon forgotten. Discussion of all emotion-arousing subjects, as religion, war, or economic or political problems, should be prohibited. The whole program must not be forced. Patients must understand that no strenuous will power is to be exerted but that any such effort will immediately destroy all benefits. It is of course axiomatic that the accepted local and general therapy for the skin disease concerned should be used, but attention to the nervous factors will often produce a cure when all such measures have been inadequate.

This paper discusses material involving the entire field of medicine, but I think that the skin is especially responsive to nervous disturbances and I believe that those treating skin diseases encounter an especially large number of individuals who belong in this group.

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CONGENITAL DEFICIENCY OF THE PERICARDIUM

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Congenital deficiency of the parietal pericardium is a rare anomaly. Moore⁸ collected sixty-four cases from the literature in 1925. Since that time eight cases^{1-7,9} have been reported in man and one case in a newborn orang-utan.⁴ The subject of congenital deficiency of the pericardium is of importance in yielding information as to the function of the pericardium, and because of the renewed interest in cardiac surgery (both cardiomyotomy and operations to increase myocardial blood supply).

Unfortunately, many of the reports of cases of deficiency of the pericardium are incomplete, and an exact analysis of all cases cannot be made. The descriptions are often so imperfect that the presence of the condition is doubtful, because of confusion with adherent pericardium. Once, the condition was diagnosed during life,⁷ an accidental finding at operation. All other instances of the condition were discovered accidentally,

as an incidental finding at autopsy; in no instance was the anomaly regarded as having exerted any influence during life or as having been responsible for death.

Moore⁸ classified the anomalies on the basis of a study of forty-two of the sixty-four cases reported in the literature: Group

I, those cases in which the heart and left lung occupy a common serous cavity, constituting 59.5 per cent of the series. This group may be further divided: (A) those cases in which there is a complete absence of the pericardium, and (B) those cases in which a rudimentary pericardium persists. Several cases in which there has been a large defect or foramen between the pericardium and the left pleura through which the heart has entered the left pleural cavity are included in subgroup B. Group II, those cases in which a foramen exists between the pericardium and left pleura, and the heart occupies the pericardial cavity; constituting 21.4 per cent of the series. Group III, those cases in which the heart maintains a normal relation to the two layers of the mediastinal pleura; either no trace of the pericardium is present or, as is most common, only rudiments of the pericardium are present near the base of the heart; constituting 19.1 per cent. Moore observed that in Group III there were eight cases, three of which were regarded as instances of probable adherent pericardium; three were incompletely described; accessible data for the other two cases was scanty.

This anomaly is a congenital defect, probably caused by an early break in the normal development of the embryo, which is connected with failure of closure or incomplete closure of the left pleuropericardial membrane, and occurs during the first five weeks of intra-uterine life. Various explanations of the exact mechanism of the failure are given by Keith, Perna, Risel, Plaut and McGary (quoted by Moore⁸). Other congenital anomalies have usually been associated with this condition.

In Moore's analysis, in five instances enlargement of the heart was observed. Barsoum¹ also noted a large heart (1,000 gm.). Beck² noted some cardiac enlargement; Grant⁶ observed a small heart at autopsy. Adhesions connecting the heart with the lungs were found in twelve instances. The condition was observed by Moore⁸ and Baillie (quoted by Moore) in the dog.

Grant⁶ made an analysis of the cases reported in the literature, in which records of the size of the heart were obtainable, and observed ten cases of enlargement of the heart, ten cases of hearts of normal size, fourteen cases in which the size was not stated, two in which size was uncertain, and ten in fetuses and children. Ladd⁷ ob-

served a pericardial defect at operation for diaphragmatic hernia, in an infant. In the literature he found three instances of the pericardial defect associated with diaphragmatic hernia.

In this paper I wish to present three cases of congenital deficiency of the pericardial sac; in all three the condition was an incidental finding at autopsy. Two instances occurred in adults who lived apparently normal lives and succumbed to other diseases; no other anomalies were noted. The third instance was observed in a white girl, seven weeks of age, who had a "congenital abdominal hernia," and who died of erysipelas. The hernia was due to absence of the recti muscles. The heart projected through a diaphragmatic defect and a pericardial defect into the abdominal cavity. The diagnosis was not suspected in one of the two adults; in the infant and in one adult, the diagnosis of chronic adhesive pericarditis was made. These three cases represent the group of autopsies performed at Cook County Hospital by Dr. Richard H. Jaffé and his associates during the years of 1930 to 1937.

Case 1.—A colored male, forty-five years of age, complained of edema of the ankles and weakness for eight months. He admitted having had both gonorrhea and a chancre "about twenty years ago." He gave a contradictory history.

Physical examination revealed a euphoric patient, with reeling gait. The blood pressure was 170/130. The pupils were pinpoint and irregular, and there was no reaction to light. The heart was enlarged down and out, and retraction of the costal interspaces was noted in systole. The rate was regular except for an occasional missed beat. There was a pericardial rub as well as a presystolic and systolic murmur at the apical area. The aortic and pulmonic second tones were accentuated. Another observer noted: "Apex beat diffuse, pulsation marked in the left mid- and anterior axillary line extending to the midclavicular line, and from the 5th to the 8th intercostal space. There is slight retraction of the intercostal spaces with each cardiac contraction. When the patient is lying on his back there is a fine crackling sound, systolic in time, heard close to the ear in the 5th interspace of the anterior axillary line. On turning the patient on his right side, in about the same spot a rub can be heard, the systolic phase of which is much louder than the diastolic." There was no edema of the extremities. A diagnosis was made of mitral regurgitation and stenosis, chronic adhesive pericarditis, chronic myocarditis and senility.

Laboratory examination of the urine gave negative results. The blood was normal. The blood Kahn and the spinal fluid Wassermann test reactions were negative. Blood chemistry showed urea nitrogen of 41 mg., and creatinine of 2.5 mg., with a one plus indican. Roentgen-ray examination revealed moderate cardiac enlargement, especially of the left ventricle. The electrocardiogram showed left ventricular preponderance; P 1, 2, 3 notched,

QRS 1, 2, 3 notched, T 1, 2, negative. The condition of the patient gradually grew worse; the cerebral symptoms became more marked, and signs of right-sided paresis developed a few days before death.

Autopsy findings (Dr. Jaffé).—Anatomical Diagnosis: Eccentric hypertrophy of the heart, especially of the left ventricle and parenchymatous degeneration of the myocardium. Focal recent and ancient encephalomalacia in the cortex of both temporal lobes and in the right occipital lobe, in the left putamen and right gyrus cinguli. Severe sclerosis of the basilar cerebral artery. Congenital defect of the pericardial sac with ectopia of the heart into the left pleural cavity.

Pericardial sac: The right half is fully developed while the left half forms a septum which is 2 to 3 cm. broad. The edges of the two parts of the sac are perfectly smooth.

Heart: Displaced into the left pleural cavity. Enlarged. 15 cm. longitudinal and 11 cm. in transverse diameter. The wall of the left ventricle is 21 mm.; the wall of the right ventricle is 6 mm. The myocardium is pale gray-brown and friable. The trabeculae are flattened. There is a diffuse whitish thickening of the endocardium in the region of the apex of the left ventricle.

Aorta: Measures 90 mm. at the aortic valve ring, 62 mm. at the celiac axis and 45 mm. at the iliac bifurcation. The intima of the thoracic portion shows numerous small slightly elevated light yellow plaques. The coronary arteries show a few hyaline fatty plaques up to 10x8 mm.

Case 2.—A white female, seven weeks of age, who had been normally delivered, was referred to the Cook County Contagious Hospital for erysipelas and congenital abdominal hernia. The physical examination revealed a poorly developed chest and enlargement of the heart. A systolic murmur at the apex and marked epigastric pulsation were noted; also a large umbilical hernia, with infected edges. The entire vulva was intensely red, elevated and apparently tender, with erythema spreading to the abdomen. The patient died eleven days after admission.

Autopsy findings.—Anatomical Diagnosis: Erysipelas of vulva and dorsum of right foot. Ectopia cordis. Communication between pericardial sac and abdominal cavity. Mesentery communis of ileum, cecum and ascending colon. Defect in anterior abdominal wall in region of umbilicus with absence of the recti muscles. Fibrous cord between apex of heart and anterior abdominal wall.

External findings: In the anterior abdominal wall, in the region of the umbilicus, is a bulging defect in the skin, 5.5 cm. in diameter. The floor is formed by a slightly granular purple-red membrane.

Abdominal cavity: The recti muscles are absent and the defect in the region of the umbilicus is formed only by a thin membrane which is firmly adherent to the anterior surface of the liver. The liver is much enlarged. The greater omentum is adherent to the anterior margin of the liver and forms a pocket in which the left lobe rests. The superior portion of both left and right lobes of the liver form two tongue-like projections which protrude through a defect in the diaphragm into the chest cavity. Between these two projections the apex of the heart protrudes through a defect in both the pericardial sac and the diaphragm into the abdominal cavity. A narrow cord of firm tissue extends from the apex of the heart to the abdominal wall. The terminal ileum, cecum, ascending colon and appendix are in the upper part of the abdominal cavity attached by a very long mesentery. Pleural cavities are intact and everywhere lined with parietal pleura. **Pericardial sac:** The inferior aspect

of the pericardial sac is in open communication with the abdominal cavity.

Heart: Near the apex is a fibrous cord 3x0.5 cm. which connects the left ventricle to the anterior abdominal wall. The external configuration of the heart appears unchanged except that the right ventricle is larger than normal.

Case 3.—A white male, fifty-eight years of age, was readmitted to the hospital eight months after refusing surgical treatment for carcinoma of the stomach. He complained of severe pain in the upper part of the abdomen of two days' duration. He vomited some food, but no blood. Blood was passed per rectum. The diagnosis of ruptured carcinomatous ulcer of the stomach was made, based on the history, findings of the diffusely rigid rounded abdomen, tympanitic throughout, with peristalsis markedly diminished. On his previous admission, x-ray examination revealed a rather constant large defect of the pars pylorica and lesser curvature of the pars media, diagnostic of carcinoma. Radiograph of the chest revealed marked cardiac enlargement, with increase of the right hilum markings, and obliteration of the right costophrenic angle. Gastroscopy (Dr. R. Schindler) revealed extensive infiltrating ulcerative carcinoma (Type IV). Physical examination of the heart revealed: no murmurs, aortic configuration with marked cardiac enlargement, and on percussion the left border was observed to be in the anterior axillary line. A pulsating mass just above the umbilicus was also noted. The patient died the day after admission.

Autopsy findings (Dr. J. L. Kirschbaum): Anatomical Diagnosis: Ulcerated mucus-producing adenocarcinoma of the stomach with perforation and formation of an intramural abscess; perforation of the abscess and sealing off by the left lobe of the liver. Metastases to the perigastric, peripancreatic and periaortic lymph nodes. Marked emphysema of the left side. Acute fibrinous epicarditis. Congenital absence of the pericardial sac. Marked eccentric hypertrophy of the heart.

Pleural cavities: The left pleural cavity contains 800 c.c. of a greenish purulent material. There is no evidence of a pericardial sac; the heart occupies the lower one-half of the left pleural cavity.

Heart: 570 gms. The myocardium is very soft, very friable, and light purple-brown. The left ventricle is 17 mm. The right ventricle is 6 mm. The cardiac chambers are dilated. The left pulmonary veins are very short. The left auricle is adherent to the hilus of the lung. The valves are unchanged. The epicardium is injected, dull and covered by fine flakes of fibrin. The aorta measures 75 mm. (aortic valve); 55 mm. (celiac axis) and 40 mm. (iliac bifurcation). The pulmonary artery measures 90 mm.; the intima is smooth.

Lungs: The left lung is shrunk and non-crepitant. In the pleura, especially in the upper lobe, there are single, up to 3 mm. stony hard anthracotic nodules. The surface of both lobes is dull. The surface of the lower lobe is covered by flakes of fibrin.

Summary

Three cases of congenital defect of the pericardium are reported: (a) partial defect in the pericardium, associated with defect of the diaphragm (heart projecting into the abdominal cavity), (b) total absence of the pericardium, and (c) absence of all but a very small septum of the right portion of the pericardium.

That this condition is compatible with life is particularly emphasized in that two of the three cases were found in adults who died from other causes, none cardiac. The pericardial defect was an incidental finding at autopsy. The condition produces no apparent cardiac handicap or deficiency in function.

There are no diagnostic signs or findings. X-ray and electrocardiogram give no characteristic sign, and do not indicate the presence of the condition. In one instance, the condition was diagnosed during life, as an incidental discovery at operation for diaphragmatic hernia. In the three cases reported, left or eccentric cardiac hypertrophy was noted in the two adult cases, and in the third case (infant) right ventricular hypertrophy with cardiac enlargement.

The absence of a pericardium, or the

presence of a defect, produces pericarditis and epicarditis in the presence of an empyema of the pleural cavity in which the heart lies.

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SPECIAL RECOGNITION OF THE GENERAL PRACTITIONER

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For years the general practitioner in medicine has been considered the backbone of the practice of medicine. As the most important factor in medical care, he has been recognized by the family not only as a conservator of health, but also through his guidance and consultation as advisor in other matters as well. It is the general practitioner who is called by the family regardless of the nature of the ailment. He is, in a sense, not only the "filter" committee, but also a tireless worker for the filter committee. In all cases of illness that he feels are beyond his ability to handle satisfactorily, he recognizes the situation and calls in a competent consultant to see the patient.

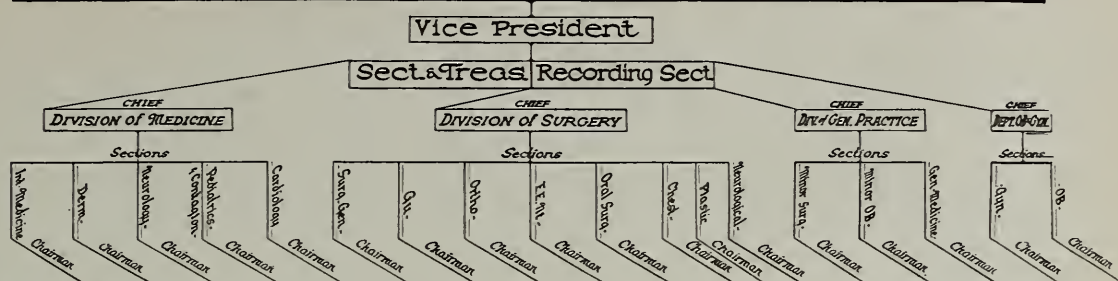
The general practitioner division of the Mt. Carmel Mercy Hospital, therefore, includes any doctor practicing medicine whose work does not exceed fifty per cent of his practice in any one specialty. Hospital staffs should be so organized as to include this general practitioners group in their set-up. To quote from a letter sent to the various staff physicians of Mt. Carmel Mercy Hospital:

"At a recent meeting of the Executive Committee of the Staff, it was determined that for the purpose of establishing a proper division of the staff, a specialist shall be defined as one who devotes more than seventy-five per cent of his practice to his specialty. In view of the above definition, it is believed that many men now registered in the Surgical, Obstetrical and Internal Medicine divisions should properly be enrolled in the General Practice Group.

"Men registered in the General Practice division will be given privileges in regard to major and minor surgery, obstetrics, as the standards set up for this work are met. Those of you who may be registered as Junior for the present may become Seniors when you have demonstrated to the satisfaction of the Credentials Committee that you are competent to do major work. It is the opinion of the Committee, however, that men whose work does not exceed 50 per cent in surgery, obstetrics and medicine should be registered in the General Practice Division."

When the new Mt. Carmel Mercy Hospital was opened on January 15, 1939, as an entirely modern, seven story, three hundred and fifty bed hospital, it was recognized at once that the general practitioner should have a division of his own. In the formation of the staff, consequently, four departments were organized, namely, the Department of General Surgery, Department of General Medicine, Department of Gynecology and Obstetrics and the Department of General Practice. All the departments have departmental heads elected by their departmental group; these represent them on the executive committee. The schematic drawing presents graphically the set-up as organized in this hospital. According to our arrangement, the physicians and surgeons are classified as to their training, ability and experience in the department in which they seek privileges. They may be made Seniors in their department when they fulfill the requirements of Seniors, which requirements are those demanded for fellowship in the American College of Surgeons and the American

Chief or President of Staff



*All Officers are elected for one year (April to April)
Staff Executive Committee to be composed of Staff Officers & Div. Chiefs (8 in all)
Staff Executive Committee to conduct all Staff Business.
Division Chiefs conduct all Business meetings of Section.*

*Chairmen of section handle all scientific meetings and monthly meetings, where deaths in section are discussed.
All Doctors are rated as Senior or Junior members.
Seniors & Juniors have equal Vote, But Seniors only can hold Office.*

16285

College of Physicians. A Junior in his department may become a Senior at any time that his qualifications are presented to and approved by the credential committee. There is no limit to the number of Seniors in a department or section.

A Senior in the Department of General Practice is a doctor who has been in practice at least ten years and has shown by his training, work and conduct that he is qualified to become a Senior. Senior men in the General Practice Department are accorded the privilege of doing limited major surgery and limited major obstetrics. All seniors must have been doing limited major surgery in recognized hospitals for a number of years. The man who has been in practice for at least ten years and has been given the honor of being a Senior in his department is recognized as having good clinical judgment and technical skill, and has shown that he will not attempt any procedure with which he is not thoroughly familiar. He must be progressive to the extent that he attends all postgraduate clinics given by the Michigan State Medical Society. Also all scientific meetings possible.

A Junior in the Department of General Practice is a man who has been in practice less than ten years, one whose training and work do not meet the requirements set down by his department, but has attended postgraduate clinics and scientific meetings, as well as his association with Senior men in his work makes him a likely candidate. It is felt that all ethical doctors should be afforded a position on the hospital staff. A patient is far safer in the hands of a less experienced doctor in a class A hospital than in the hands of such a doctor in the home or in a non-recognized hospital.

An advantage of such recognition is that it enhances the dignity of general practice, thereby encouraging men to remain at it a reasonable time before seeking a specialty. It is almost universally conceded that the specialist who has a broad background of general medical and surgical practice will render more efficient service than he who immediately on leaving college limits his practice to a particular region of the human body.

PRICELESS PROGRESS BUT DECEPTIVE*

NORMAN F. MILLER, M.D.

ANN ARBOR, MICHIGAN

Anyone familiar with the hazards of childbearing in the United States of America must derive considerable satisfaction from the reported decrease in maternal mortality. Michigan physicians may take pride in the fact that during 1937 the maternal death rate for this state reached an all-time low. The rate was only slightly higher in 1938. One reason for this decline has been the steady decrease in the number of deaths from toxemia. Indeed, obstetricians and physicians practicing ob-

stetrics may be especially interested in what has occurred in Michigan with reference to the toxemias of pregnancy. This is clearly shown in the graphic chart.

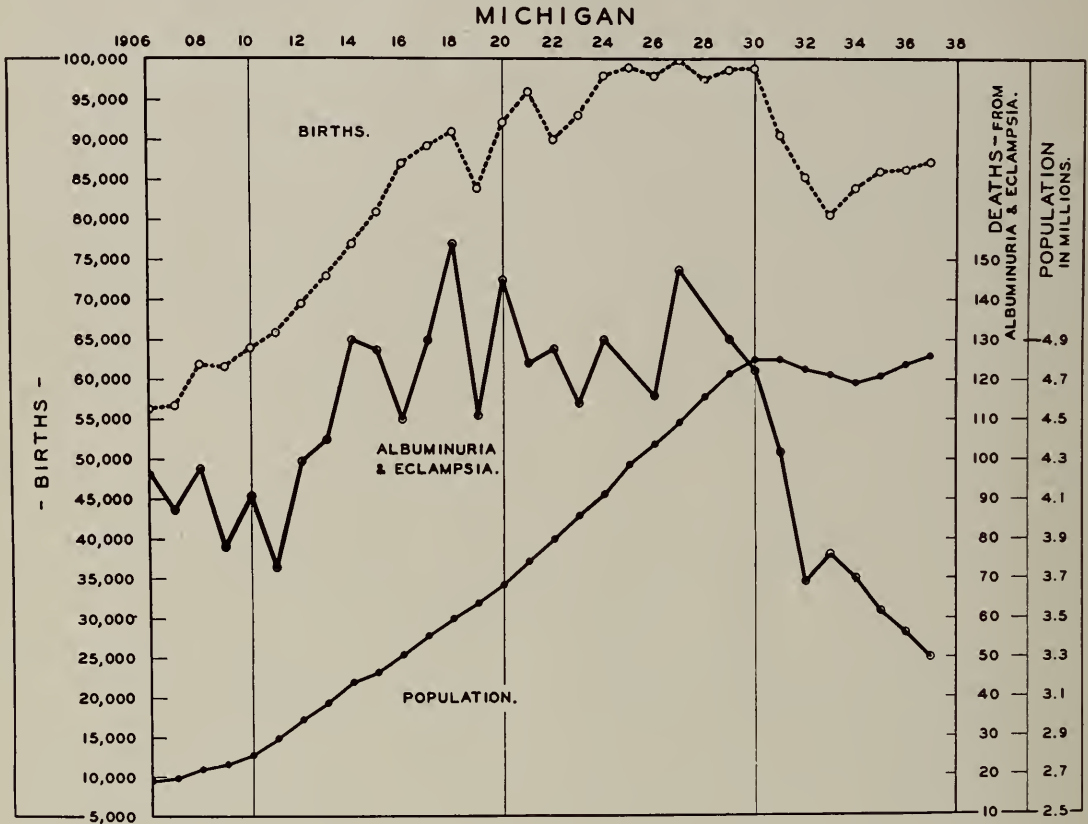
The recorded mortality from this cause reached an all-time low in 1937 and it would appear that in this group of diseases real progress is being achieved. While the 50 maternal deaths from toxemia in 1937 is still well above the irreducible minimum it nevertheless represents a tremendous improvement. The factors responsible for this accomplishment are both important and interesting but

*From the Committee on Maternal Health, Michigan State Medical Society.

cannot be discussed at this time. While in Michigan the number of deaths from toxemia, in 1938, equalled that recorded for 1935, this may represent only a temporary rise in what, it is hoped, will continue to be a progressive decline. *But*, there is another angle to the problem which must not be overlooked.

neither uniform nor clear. Yet, recognition of certain basic facts should prove helpful.

The fact that we still do not know the cause of toxemia does not appear to be an insurmountable obstacle to its control. Progress already made amply proves this point. Prevention, always important, a



The recorded deaths attributed to toxemia of pregnancy do not tell the whole story. In this respect, the mortality is deceptive for it includes only the immediate or acute deaths, whereas many women die months or years later as the result of a severe and/or excessively prolonged toxemia during pregnancy. Just how many late deaths occur from this cause is unknown, but it is safe to state the recorded figures by no means indicate the total havoc wrought by this complication. Thus, it is known that more women than men between the ages of 15 and 44 die from chronic nephritis. Furthermore, increasing evidence reveals that approximately 40 per cent of toxemic suffers will have evidence of serious renal and/or vascular disease within a few years following the primary toxemia. To be sure, much additional study is necessary before this less tangible aspect of the problem can be properly evaluated. In the meantime, however, it may be well to remember that good therapy aims at more than one objective. Reduction in immediate mortality for both mother and child is tremendously important but it is not enough. Morbidity and late mortality from this cause must also be reduced. Ways and means for accomplishing this double objective are

specific reality for parous women, that is those women reporting toxemia with a previous pregnancy, still is not adequately utilized. Active therapy continues to be the application of one or more of the many systems or methods of empirical treatment, and, when these fail, the interruption of pregnancy. There is need to recognize these systems for what they really are; namely, means of symptom control and nothing more. Since there are many to choose from it behooves us to select that method or combination of methods which best controls the symptoms, *and also* minimizes the hazard of permanent vascular and/or renal injury. Finally, since we do not know the cause of toxemia, and since there exists no cure with the possible exception of termination of pregnancy, let us definitely recognize that failure to control symptoms becomes a clear cut indication for interruption of pregnancy by intelligent and conservative means. This is important, because prolonged exposure to a poorly controlled toxemia may be every bit as damaging as a brief but extremely severe attack. If treatment be intelligent and adequate, response to such treatment, rather than the stage of gestation, should be our criteria for interruption.

STAFF CONFERENCE, DEPARTMENT OF INTERNAL MEDICINE UNIVERSITY HOSPITAL, ANN ARBOR

Case 1.—T. S., a white Hungarian housewife, aged forty-eight, was re-admitted to the University Hospital March 6, 1939, because of an acute upper respiratory infection. She was first admitted to the Gynecology Service on February 5, 1936, because of menorrhagia and metrorrhagia. At this time she had no other symptoms except the above and those referable to a ventral incisional hernia which had been increasing in size for a year. Glycosuria was found on routine examination. A glucose tolerance test was performed on February 10, 1936 (using 1.75 gms. of glucose per kilogram of body weight) with the following results:

Time	Fasting	1st hr.	2nd hr.	3rd hr.
Blood	128 mg. %	314 mg. %	322 mg. %	202 mg. %
Urine	0	+++	++++	+++

She was given a castration dose of x-ray, which stopped her uterine bleeding.

Because of her obesity (193 pounds) she was placed on a reduction diet of 1,000 calories with 50 A.G. (available glucose). While on this diet her urine remained free from sugar. Her diet was altered from time to time but her impaired glucose tolerance permitted glycosuria when the available glucose in her diet was raised above 110 gms. On April 20, 1936, she weighed 162 pounds. She was readmitted to the hospital May 5, 1936, for a ventral herniorrhaphy. Bronchopneumonia developed following the operation and small doses of regular insulin were given to keep her urine free from sugar; but this was ultimately eliminated. She was again instructed to follow the reduction diet of 1,000 calories with 65 gms. of available glucose (her weight at this time being 142 pounds). The available glucose content was increased slowly until once again she could eat 110 A.G. without having glycosuria.

only occasionally. While on this general reduction diet, her urine was free from sugar. Another glucose tolerance test was obtained July 28, 1937 (see table).

On March 2, 1939, she developed a head cold, generalized malaise, and a chill, followed by a cough and some blood streaking of her sputum. She was readmitted to the Medical Service March 6, 1939. The remaining systemic history was not contributory. There was no family history of diabetes mellitus.

Physical examination: T. 102.4° (F); P. 132; R. 28; B.P. 130/80; weight 133 pounds. She was acutely ill and there was slight cyanosis of her nailbeds and lips. The conjunctivæ were injected and photophobia was prominent. The nasopharynx was acutely injected but no exudate was present. The lungs were free from abnormalities except at the base of the right lung posteriorly, where there was dullness, a decrease in the whispered and spoken voice, and crepitant râles. The heart was not abnormal. The abdominal examination revealed an incisional ventral hernia but no visceral enlargement.

Laboratory data: Urine: No sugar or ketone bodies were demonstrable at any time. The blood studies showed red blood cells 4,000,000 per cu. mm.; white blood cells 4,900 per cu. mm.; hemoglobin 85 per cent (Sahli); the differential count was not abnormal. The sputum examination by culture showed a variety of organisms, including Type III pneumococci.

Case 2.—J. W., a white farmer, aged forty-six, was first seen in the Medical Out-patient Department of the University Hospital on December 6, 1938, complaining of weakness. He had been well until about one year prior to his first visit here, at

GLUCOSE TOLERANCE TESTS

Date	2/10/36	Urine	8/4/36	Urine	10-27 1936	Urine	11-3 1936	Urine	1-19 1937	Urine	5-5 1937	Urine	7-28 1937	Urine
Weight	193		133½		132		134		152		144		142	
Fasting	128	+	85	0	104	0	91	0	119	0	103	0	88	0
1 hr.	314	+++	216	++	176	+	139	0	230	++++	148	++	135	0
2 hr.	322	++++	198	+++	107	0	72	0	185	++++	128	++	107	0
3 hr.	202	+++	118	+	78	0	61	0	102	++	101	0	66	0
4 hr.			68	0	58	0	59	0	61	0	63	0	56	0

In August, 1936, after a glucose tolerance test (see table), her diet was again changed so that she was eating a diet with a caloric value of 1,200 calories with 140 A.G. without having glycosuria. At this time she weighed 133½ pounds. In October, 1936, she was given a general diet and after four days another glucose tolerance test was obtained (see table), and another in November, after 12 days on a general diet (see table). She returned in January, 1937, having gained weight (152 pounds), at which time her glucose tolerance test was again abnormal (see table). She continued to eat a general diet and when she returned in May, 1937, her weight had fallen to 144 pounds. The glucose tolerance test showed an increase in the tolerance (see table). At this time she was again placed on an anti-obesity diet in an attempt to reduce her weight to 134 pounds, but she restricted her food intake

which time he developed ease of fatigue, weakness, and occasionally drowsiness. There was a noticeable polyuria and polydipsia as well as an increase in his appetite. Early in November, 1938, he had a moderately severe illness during which he had watery diarrheal stools but these did not contain gross blood or pus. This acute episode lasted ten days, during which illness it was found that his urine contained sugar. Concomitant with these symptoms there had been a weight loss of about seventeen pounds. When he was first seen here he had recovered from this acute gastro-intestinal upset.

The systemic history was not significantly abnormal. There was no family history of diabetes mellitus. He had been obese for approximately sixteen years, weighing 135 pounds at twenty years; 145 pounds at twenty-five years; 160 pounds at thirty-five years; 200 pounds at forty years; 200

pounds in November 1938, and 183 pounds in December, 1938.

The physical findings were not abnormal except for a rather marked degree of obesity. His blood pressure was 140/70 mm. of mercury. The urine examination at this time showed a ++++ sugar reaction, but no diacetic or acetone bodies.

He was given a "glucose tolerance preparation diet" for three days and on the fourth day a glucose tolerance test was performed, giving 1.75 gms. of glucose per kilogram of body weight. The results of this were as follows:

	Fasting	1st hr.	2nd hr.	3rd hr.	4th hr.
Blood..	.242 mg. %	370 mg. %	482 mg. %	410 mg. %	356 mg. %
Urine..	++++	++++	++++	++++	++++

He was then given a diet containing 1,200 calories with 125 gms. of carbohydrate and 70 gms. of protein, with the advice to return for reexamination when his weight was normal (calculated to be 163 pounds). He was discharged December 15, 1938.

Course at home: He adhered to his diet. His urine was examined on only two occasions and each time sugar was present. He felt quite well until two weeks before readmission, at which time he developed ease of fatigue and drowsiness, aching in his lower extremities, polyuria and polydipsia. Thirty-six hours before readmission on February 28, 1939, he developed a severe head cold.

The physical findings were: T. 98° (F); P. 88; R. 20; B.P. 105/60. He now weighed 145 lbs. but was moderately dehydrated. His skin was dry and showed a yellow discoloration which was particularly noticeable on the palms of the hands and soles of the feet. There was a moderate hyperkeratosis pilaris. The sensorium was cloudy. There was an acetone odor to the breath. Evidence of a mild rhinopharyngitis was present but the examination otherwise was not significant.

Laboratory data: Blood: R.B.C. 6,000,000 per cu. mm.; W.B.C. 8,100 per cu. mm.; Hg. 102% (Sahli); the differential count was not abnormal. The urine examination showed albumin 4+; sugar 4+; no r.b.c., 1-2 w.b.c. per high power field, and 7-10 coarse granular casts per low power field. The blood sugar was 336 mg. per cent and the plasma CO combining power was 25 volumes per cent. The plasma cholesterol was 700 mg. per cent (200-250 mg. per cent is normal by this method). The serum carotene was 44 dichromate units (normal, 4-5 dichromate units).

Course in the hospital: The treatment consisted of repeated doses of regular insulin, parental (intravenous saline) fluids, and sodium bicarbonate by mouth. He recovered from the acidosis and was given a diet containing 100 gms. protein, 250 gms. carbohydrate, and 3,000 calories, on which diet he was well controlled with the use of regular insulin (U40), 40 units at 7:00 A. M., 10 units at 2:00 P. M., and 12 units at 10:00 P. M. At the time of discharge, he weighed 165 lbs.

Discussion

DR. LOUIS H. NEWBURGH: The chart of the first case shows the close relationship, in such a patient, between body weight and ability to dispose of ingested glucose. We have come to recognize this type of patient as one whose disturbance in the metabolism of carbohydrate is based upon long standing obesity. That this disturbance is reversible by reduction of weight is again demonstrated by this patient. It should be noted that all glucose tolerance tests, both before and after weight reduction, are done after the patient has been fed a standard

high carbohydrate preparatory diet (300 gms. carbohydrate, 80 gms. protein and maintenance calories) for at least three days prior to the test. We thus eliminate any effect which the previous dietary might have upon the results.

From a clinical point of view it is important to note several things in the history of this patient. She came to the hospital for a surgical condition which was relieved. Glycosuria was an incidental finding and although all of the diagnostic criteria for true diabetes mellitus were satisfied, the patient had never had symptoms suggesting this disease. She had been markedly obese for at least twelve years before coming to the hospital. There had been no spontaneous weight loss.

The marked loss of tolerance during a sharp infection and the difficulty in controlling true diabetes under such conditions is well known. In contrast, this case afforded us an unusual opportunity to confirm our general impression that the patient was not a true diabetic. On this last admission to the hospital, she had a severe sore throat, a temperature of 104° (F), and râles at one lung base. Despite her obvious toxicity there was at no time any glycosuria or ketonuria.

The other case, Mr. W., is shown to emphasize the history and course of a true diabetic. He also had been obese for many years. His weight history shows a progressive increase in weight until he reached 200 pounds. The clinical history indicates the difference. This patient had been losing weight spontaneously before he came here in spite of an excessive appetite. His weight on admission was 183 pounds. He had been having polyuria, polyphagia and polydipsia associated with listlessness, drowsiness and confusion. All of these are symptoms of uncontrolled true diabetes mellitus, even though he was still overweight when we first saw him. The fact that his glucose tolerance test was abnormal would not, of course, differentiate him from an obese glycosuric. Assuming that he had glycosuria due to obesity, he was sent home on a reduction diet. He came back again in severe acidosis which required vigorous treatment. The blood cholesterol was strikingly elevated, as is so often the case.

The whole point here, as I see it, is that we must not be over-enthusiastic about the relationship of hyperglycemia and obesity in the sense that *all* obese persons who have glycosuria are suffering merely from a complication of obesity and not from diabetes. Patients who have glycosuria as a complication of obesity often seek medical aid for reasons other than the glycosuria. They are obese and have not lost weight unless they have been given a reduction diet. It is characteristic of them to maintain their adiposity. Seven or eight of every ten obese, middle-aged persons with glycosuria are not diabetic in the true sense. They can be returned to normal merely by reduction of their weight.

The others, also obese, have true diabetes. These give a history of obesity. Then, characteristically

and for no apparent reason, they begin to lose weight, become weak and debilitated. An individual may, therefore, be obese at the time that the physician first sees him and still have diabetes mellitus.

DR. JEROME CONN: I have very little to add to Dr. Newburgh's remarks except to clarify a point about our work which I find has been misinterpreted in the literature. We have striven to emphasize that since the obese, middle-aged glycosuric group of patients show no impairment in their ability to oxidize glucose, they are, by definition, not true diabetics; that their deficiency, which is fundamentally different from that suffered in true diabetes mellitus, can be corrected by weight reduction. This simple concept has been missed. It has been interpreted as a claim to be able to cure diabetes mellitus by reduction of weight. Since we feel that this group does not have true diabetes mellitus, such an interpretation is incorrect. The obese, glycosuric patient conforms to all the accepted standard diagnostic criteria for diabetes mellitus with the important difference that he maintains a normal capacity to oxidize glucose. When his weight is reduced to normal he disposes of normal amounts

of carbohydrate normally and no test known to us will bring out any deficiency in the metabolism of carbohydrate.

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WIDESPREAD USE OF TUBERCULIN TEST URGED TO DISCOVER INFECTION

Emphasizing the importance of early diagnosis in a tuberculosis control program, E. A. Thacker, M.D., Urbana, Illinois, in *Hygeia, The Health Magazine*, for April, urges the widespread use of the tuberculin test to discover infection.

"Early tuberculosis ordinarily manifests itself in an insidious, gradual onset, sapping the vitality and strength of the individual, yet producing only vague, indefinite symptoms," the author says. "A hacking cough often attributed to smoking or fatigue attributed to overwork may be all that is noticed."

Many persons, therefore, fail to go to a physician when such symptoms occur. A routine program using the tuberculin test, such as many communities and schools have inaugurated, discovers such early cases.

While a positive reaction to the tuberculin test does not mean that the person examined has active tuberculosis, it indicates that at some time or other he has been infected with it. "Positive reactors are far more likely to develop the disease in later life than are the negative reactors," Dr. Thacker points out. Therefore, an x-ray examination should be performed on all positive reactors to determine whether the disease is in the active stage.

Discussing the course of the disease, the author says, "The initial or childhood type of infection produces an inflammatory or pneumonia-like lesion in the lungs and after weeks or months usually completely heals, leaving a small scar or a calcified nodular tubercle. Although children may die from this first infection, the vast majority overcome it, and many pass through this initial infection without knowing it.

"The adult type of tuberculosis occurs in one of two ways. The small healed lesions from the initial infection may break down, allowing some of the organisms that have remained alive within the tubercle to spread through the allergic tissues. Or else the person comes in contact with an active case of tuberculosis; the bacilli are taken into the lungs and the destructive type of tuberculosis begins.

"The classic symptoms of the reinfective or adult type of pulmonary tuberculosis include loss of appetite, loss of weight, fatigue, unexplained pains in the chest, afternoon fever, pleurisy, cough and sometimes blood in the sputum."

THE JOURNAL

OF THE

Michigan State Medical Society

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JUNE, 1939

*"Every man owes some of his time to the up-
 building of the profession to which he belongs."*

—THEODORE ROOSEVELT.

EDITORIAL

THE FREE CHOICE OF PHYSICIAN

WE HAVE heard a great deal of the matter of securing for the patient the right of free choice of physician. Those not so intimately concerned with medicine as are doctors themselves, are apt to wonder, why all this solicitude on the part of the medical profession. A phase of the subject that has hitherto been wholly unemphasized, or only slightly so, is the fact that competition is necessary if we are to be at our best and to give of our best. Competition in industry has produced the best possible automobile and the best iceless refrigerator. Monopoly tends to stagnate. If one has entire control of any entity, why improve it?

Competition in medicine, which is expressed in the phrase, "free choice of physician," stimulates the physician not only to promptness in meeting the demands of his profession, but in self-improvement as well. In other words, "free choice of physician" disposes him to buy books, to subscribe to professional magazines, to pursue postgraduate study and to attend to all amenities which make for a successful physician. Without this privilege on the part of the patient, it is difficult to foretell with any accuracy what the status of medicine might be in the matter of a very few years.

Let us have free choice of physician then, because this prerogative on the part of the patient makes the best possible physician and surgeon.

THE STATE MEDICAL JOURNAL

"My dear Doctor:

"Though we had hoped to find a place for your paper in the _____ Journal, and have held it until now, we find that the space is so limited that we are compelled to return a number of papers that we would like to publish.

"Therefore, we are sending you the paper, which you may care to place elsewhere."

THIS is a copy of a bona fide letter from one of the national journals to a contributor whose voluntary contribution had been accepted and had been kept on file for a considerable length of time. We publish it as typical of the experiences which not only national medical and scientific publications are having, but one which holds for state medical journals as well.

The state medical journal has come to be looked upon as an institution. If institutions render service to a large clientele, their right to existence is beyond question. If they do not, on the principle of survival value, they will go to the wall. THE JOURNAL of the Michigan State Medical Society is published by the council of the society originally for the purpose of putting in permanent form for the membership, papers that are read at the annual meeting of the society. This JOURNAL, however, has widened its scope and has accomplished more than this. There has been an effort towards publication of the best of the papers presented at other than the annual meeting of the state society, those read before the county medical societies, and voluntary contributions of merit, likewise, have been accepted.

The fact that medicine has advanced in the past two decades is unquestioned. Coupled with professional scholarship acquired at college, we have postgraduate courses, now universally accepted. One result of it all is that the workers in the various departments of medicine and surgery desire to record results of their clinical research, for this term would describe much of it. The only means of placing it on record and of passing it on for the benefit of others is the printed page; the page of the journal reaches the readers much more promptly than the page of the book.

There never was a greater demand for space in this JOURNAL than at the present time. It has kept pace with the spread of the urge for self-improvement and postgraduate medicine and surgery.

SUBSTANDARD CULTS

WITH the biennial sessions of state legislatures, the recrudescing subject of cult legislation comes to the fore. Michigan is not alone in this respect. The New York and the Massachusetts legislatures are confronted with cults seeking legalized privileges or extension of the privileges they already have.

The osteopaths of New York are seeking legislation which would enable them to perform minor surgery and to employ anesthetics, antiseptics, narcotics and vaccines. It is somewhat confusing to know what is included under the term, osteopathy. We have never seen a textbook on osteopathic anatomy, physiology or practice. Webster's Dictionary (latest edition) defines osteopathy as a "system of therapeutics based on the theory that diseases are due chiefly to mechanical derangement, especially displacement of bones, as the vertebræ, with resultant pressure on the nerves and blood vessels, with corresponding interference with innervation and circulation." The definition goes on to say that treatment is directed toward mechanical corrections, especially by manipulation of the parts. The *New York State Medical Journal* of April 1, 1939, comments as follows:

"To permit osteopaths to perform surgical procedures of any kind would break down an important distinction between osteopaths and physicians—a distinction which is inherent in osteopathic theory and in the limited educational preparation osteopathic students receive.

"Include surgery and the administration of drugs

in osteopathy and for all practical purposes you have the practice of medicine. If osteopaths desire to practice medicine, they should complete the pre-medical course required of medical students, take the full medical course in a medical college, and intern in an accredited institution as physicians do.

"The desire of osteopaths to employ drugs and perform surgery is an admission of the deficiencies of osteopathy proper. Even the best educated osteopaths are trained in accordance with this limited, sectarian theory. They are not qualified to embark on the broader duties of medical practice."

The *New England Journal of Medicine* for April 20, 1939, quotes from a report of a special commission of Osteopathy, Chiropractic, Food, Drugs and Poisons, as follows:

"After several hearings, the commission is not convinced that the Commonwealth should establish a separate board of examination and registration of osteopaths. It has been asserted, and admitted, that osteopaths engage in the practice of medicine; therefore, it appears to the commission that they should be required to pass the examination of the Board of Registration in Medicine."

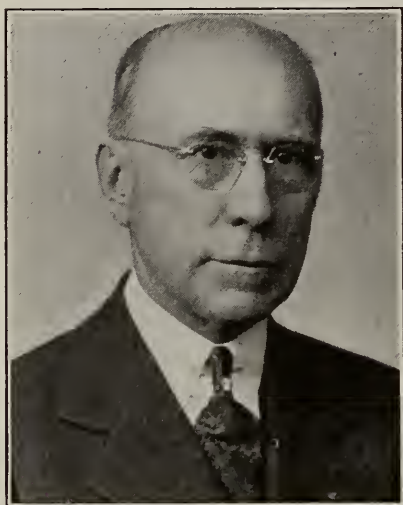
The premises are sound; in logic, there is no escape from the conclusion, comments the *New England Journal of Medicine*. We could go on at length, but to medical readers, it is scarcely necessary to point out the fallacy of extending privileges to substandard cults while exacting higher and higher standards in regular medicine.

From the legislator's viewpoint all, including medicine, are viewed as self-seeking, pressure groups who must be dealt with without discrimination. We have already pointed out that regular medicine is the only system that is recognized by state supported institutions of higher learning as well as highly endowed universities throughout the land. The only logical viewpoint for a legislator, or a doctor, or anyone else, is that those institutions which render the greatest service to the greatest number are entitled to legal recognition. Our position as an alleged "pressure group" is unfortunate. As the *New England Journal of Medicine* so aptly expresses it, "Physicians must ever be alert to detect efforts to lower the standards of the practice of medicine, and must constantly exert themselves to prevent such degradation." The physician more than anyone else knows and realizes the danger of substandard cults, when at the same time nation-wide efforts are being exerted for the amelioration of public and private health. It is not a matter of being fair to any one or more pressure groups; it is a matter of recognizing the highest

standards and discouraging lower, of recognizing the good of the people as a whole.

A. H. MILLER, M.D.

DR. A. H. MILLER of Gladstone, Michigan, has been appointed councillor for the twelfth district, succeeding the late Dr. C. D. Hart, who died shortly after tender-



DR. A. H. MILLER

ing his resignation as councillor of the twelfth district. Dr. Miller, in response to a request for data for a biographical sketch, wrote facetiously of his "short but simple annals in life's sequestered scene." With this brief introduction, we expect great things of Dr. Miller. His so-called "sequestered life" has afforded him the opportunity to develop intellectually and professionally way beyond the majority of us. Dr. Miller was born in Thessalon, Ontario, October 8, 1881. He received his preliminary schooling at Sault Ste. Marie, Ontario, and was later licensed by the state examination as a registered pharmacist in 1900. He entered the medical school of the University of Michigan the same year and graduated with the class of 1904. The doctor says he "prowled around for three years" and located in Gladstone in July, 1907. We are impressed with the deliberation exercised by the doctor before finally settling down to business. He has been in general practice, including industrial surgery, at Gladstone since first locating there. He has been twice president of the Delta County Medical Society and he is at the present time, president of the Upper Peninsula Medical Society.

The Council of the Michigan State Medical Society is to be complimented upon the acquisition of Dr. Miller.

MISUNDERSTOOD

THE *Detroit News* of May 3 comments editorially on what it terms a wrong use of the law. The *News* goes on to say, "The public's attention should be called to a move on the part of a number of businesses and professions to limit competition by means of laws restricting or prohibiting advertising." The *News* mentions that there have been half a dozen such proposed laws introduced into the legislature at Lansing.

We are not concerned with business, but are very much concerned when it comes to professional advertising. The importance of advertising should not be overlooked. It is the very life blood, not only of all lay periodicals, but of medical journals as well. The objection to professional advertising consists in the fact that the only thing the professional man has to offer for sale is his skill or ability and his experience. He cannot offer things that are manufactured by somebody else. When one attempts to advertise, there is a disposition to use descriptive adjectives and when it comes to describing and extolling, there is always the danger of the emotional element which jeopardizes truth. This is true in medicine and dentistry. Therefore, the medical profession have disparaged advertising. The reason, however, is not, as intimated by the *News*, "to cripple competitors and competition." Surely a profession which extends its services to the needy without money and without price cannot be justly accused of such base purpose.

The *News* specifies the bill to oppose dental advertising. It says, "The bill of the kind that has advanced farthest happens to be one aimed at the advertising dentist." It would seem on the face of it that the dentist is in the same category as the merchant or commercialist; in other words, that he has something to sell, namely, dentures. This is only partly true, however. To be a successful dentist demands as much professional skill as a physician possesses. His calling involves a knowledge of anatomy and pathology quite equal to that of the doctor, and the same may be said of his technical skill. There exist then the same reasons against self-exploitation in dentistry as

prevail in medicine, under the Hippocratic tradition.

These restrictions to publicity obviously do not apply to the distribution and sale of material things. True

He who has something to sell,
And goes and whispers it down a well,
Is not so likely to collar the dollars,
As he who climbs a tree and hollers.

When it comes to advertising merchandise of any sort, we agree with the *News*. There should be no legal restrictions of any kind except the compulsion to tell the truth and to make no unjust claims.

The stand taken by both medicine and dentistry should appeal to all who give it the least serious thought. Should competition and personal advertising or advertising one's alleged ability get out of bounds, it is impossible to conceive to what bizarre lengths it would be carried.

Insufficient Medical Care

From whence comes now this hue and cry
Of folk who say there are those who die
Because of insufficient medic care
And want of doctors, here and there?

Where is that poor benighted man,
Whose needs must have another plan?
Where is the indigent, sans pay,
From which the doctor turned away?

Where are these folk?—We ask no more—
For help—We've had sufficient store
And know we've ever faithful been
And cared for poor from morn till e'en.

We have waited long, they've answered not,
Nor have they shown we've come to naught,
And now we feel a wee bit hurt,
So, may I be a wee bit pert?

Quit now insulting physicians old,
Who've always gone where we've been told.
Quit now insulting clinics free,
That have been abused so terribly.

Quit now insulting Institutes
That have dug among disease's roots.
Quit now insulting empty beds
That await in Hostels, blacks or reds.

Quit now insulting the heritage
That men so loved and built for age.
Quit now insulting the blessed home
That proudly refused being "on the Town."

Quit now insulting the spirit free
America's spirit, fore'er to be.

WEELUM.

GOOD PAPERS GONE WRONG

MILES J. BREUER, M.O.
Lincoln, Nebraska

EDITORIAL NOTE: The following paper which appeared in the May Number of the *Nebraska State Medical Journal* contained so many meritorious suggestions on the subject of the presentation of medical papers that we have written Dr. Breuer and obtained his consent for its publication in THE JOURNAL of the Michigan State Medical Society.

Many a medical article which would otherwise be valuable, completely fails to reach its intended audience, because of deficiencies in technic of public presentation. We have seen these faults, both in the men who read papers or present addresses, and in those who discuss them or make speeches apropos of business matters on the floor. We have seen them not only in the man who is young or far from the centers of opportunity, but among some of the most prominent medical speakers. I once drove a thousand miles to hear a famous speaker and when the time came he spoke so incoherently and faintly that I got nothing except what later came out in the medical journal.

Speakers mumbling down into their vests with their necks bent forward, or standing in a sloppy attitude, will spoil the finest medical paper that was ever written. Talking too long or not having the talk properly organized; talking too technically for the particular audience, will result in the failure of the audience to catch the significance of a very fine piece of work or statistical observation. Trying to compel an audience to keep statistics in mind as the speaker reads them off of paper, or wandering off the subject is deadening; the reason people do not walk out is because they are too paralyzed to do so. Walking nervously around, indulging in some mannerism like scratching the face or tapping the foot; not looking the audience exactly in the eye, will turn three-fourths of a medical meeting from a pleasure into a chore for the listeners.

It is quite as necessary for the medical man to learn the art of public address as it is for an attorney or legislator. A medical man has quite as much public speaking to do as any one in the community. If he does it well he fulfills his purpose; if he does it poorly he does worse than nothing; he creates a bad impression of himself. In fact, it would be quite possible to set up statements quite the converse of those in the preceding paragraph, all to the effect that a well presented paper gives the audience a great deal of pleasure and profit even though there is nothing startling in its actual intrinsic contents. How many times have we heard and enjoyed a paper thoroughly because of the personality of the speaker, and been disappointed upon reading it in print to find that there was not much of anything interesting in it.

The following suggestions are offered for making the necessary good impression in delivering medical material orally to an audience. They have

been gleaned from actual experience and from contact with qualified teachers in the subject.

For experienced speakers and quick thinkers, it is better not to read the paper off the typewritten sheet but to talk naturally from notes. The notes are strictly necessary in order to keep the talk within the limits of time as well as of its own organization. Never read large quantities of statistics. If these are necessary have a chart or lantern slide. Even then they frequently fail and should be kept as far as possible out of a verbal presentation and limited to printed material, since they require solitary study.

Stand straight, stand still, stand on both feet. Do not move unless there is an actual purpose in the movement. Please distinguish the preceding from stiffness. The attitude suggested is that of maximum stability; in that attitude it is easiest to stand longest without making the audience nervous.

Use a low-pitched diaphragm voice which will carry well. Talk with the mouth wide open and use the muscles of the face. Words through closed lips sound as though Charlie McCarthy were still locked in his trunk. Words spoken with the face held as though it were a mask of cement will not carry. Adapt the volume of the sound to the size and distance of the audience and the presence or absence of electrical aids to the voice. You can tell very easily by watching the audience whether or not they hear you.

Look the audience in the eye. Look one person in the eye and then another. Make everybody in the entire audience feel that you are talking particularly and individually to him alone. Never let your eyes wander away from the audience.

You ought to be tired after making a speech. That means put energy into it. An impassive lackadaisical, monotonous droning along for ten, twenty, or thirty minutes will petrify an audience even more effectively than poison gas. It is hard work getting thoughts across to the audience. Unless you actually put this work into it you have not gotten your ideas across.

Watch the audience all of the time. Only a little experience will enable you to tell whether or not your points are getting home, and which way to vary what you are trying to do. A little more experience will enable you to play with your audience and work on their emotions much as you would play on the piano or organ. This is of course more extensively true of emotional types of speaking, but it does not necessarily exclude medical speaking.

It would do no harm if some definite attention was paid to this problem in our organized medical bodies.

WHAT IS OSTEOPATHY?

"Is it medicine or is it not? Do schools of osteopathy teach medicine or do they not?" asks an editorial in *The Journal of the American Medical Association* for April 29.

"Last year 144 applicants whose training had been received in osteopathic schools were licensed by the boards of medical examiners in ten states to practice medicine, surgery or both; 101 were licensed after examination and forty-three without examination.

"In a number of states bills have been introduced which, if passed, would give to graduates of osteopathic schools the same privileges and responsibilities that are given to graduates of approved medical schools. Is such legislation compatible with public safety or in the interest of public welfare? Proponents of these measures claim that medicine is taught as completely and as thoroughly in schools of osteopathy as in schools of medicine.

"Osteopathic schools have consistently refused to permit an inspection by the Council on Medical Education and Hospitals of the American Medical Association. Recently, however, a committee of the Kansas legislature visited one of these schools and found conditions which a recognized medical school would not tolerate. In the medical sciences, anatomy, biochemistry, physiology, bacteriology and pathology the faculty was utterly inadequate both in numbers and in scientific training. For teaching the various clinical branches of medicine the number of hospital patients available was about one twenty-fifth of the number to which students at the University of Kansas have access. This school of osteopathy, at least, does not even remotely approach the generally accepted standards of education for the practice of medicine."

IF YOU GO TO JAPAN

For the benefit of English speaking motorists the following directions are posted in conspicuous places by the Japanese roadside:

1. At the first rise of police hand, stop rapidly.
2. Do not pass him by or otherwise disrespect him.
3. When a passenger of the foot hove in sight, tottle the horn. Trumpet at him. Melodiously at first, but if he still obstacles your passage, tottle him with vigour, and express by mouth the warning—Hi! Hi!
4. Beware the wandering horse that he shall not take fright. Do not explode the exhaust box at him. Go soothingly by.
5. Give big space to the festive dog.
6. Go soothingly in the grease mud, as there lurks the skid demon.
7. Avoid entanglement of dog with your wheel spokes.
8. Press the brakes of the foot as you roll round the corner to save collapse and tie-up.

President's Page

IT CAN BE DONE

THE enactment into statute of the Enabling Bill marks a milestone in social-medical history not only in Michigan but in the United States. The Michigan Legislature has done its part. The Governor and the members of the Legislature should receive your personal endorsement of their action.

The responsibility for successful results now depends almost entirely upon organized medicine.

The majority of physicians put the social and medical welfare of the country ahead of all personal interest. There are enough patriotic men of medicine in the organization who are not afraid to pioneer. The Enabling Act makes it legally possible for such an action to be taken.

There still exists in the lay population a large number who do not want to be regimented or federalized. A large portion of our fellow citizens believes in individual responsibility and free enterprise. They would rather pay for their medical service and retain their self-respect and dignity. They want the freedom of individual choice.

These two groups—patriotic physicians and real liberty-loving American citizens—can be brought together through proper medical service coöperation.

It can happen here.

In all sincerity,



President, Michigan State Medical Society.



PATIENTS' ACCOUNTS

Their Relation to the Estate

By HENRY C. BLACK and ALLISON E. SKAGGS

IN DISCUSSING anything as intangible as the value of a ledger of uncollected accounts, it must be borne in mind that their collectability depends on several factors in addition to the ability of the patient to pay, namely (a) goodwill, (b) age of the account, (c) collection approach, etc. The goodwill factor usually is at its peak during a successful practice, but usually drops decidedly within a few months after the doctor's death, particularly when his patients have found other satisfactory medical service. In the same manner, the more recently the service has been rendered, the more apt, all other things being equal, is the account to be paid, while most important of all is the method by which the attempt is going to be made to collect the accounts, particularly when they become one of the doubtful assets of an estate.

In making an appraisal of accounts for estate purposes, many procedures are possible, yet averages are probably more satisfactory than any attempt to estimate the value of individual accounts. These averages should be based on a careful study of the relative percentage of collections during the past several years, whether reasonable collection procedures have been used during that period, the type of practice, goodwill, etc. In general, although our own experience in liquidations will show collections from 20 to 25 per cent of the total of all accounts outstanding at the time of the doctor's death, we believe it safe to say that the averages throughout the state of Michigan during the past ten years would not exceed 10 per cent if that.

This problem of appraisal of patients' accounts is very important in relation to taxes, both from the standpoint of income tax as well as the federal estate tax. It is most important that a fair appraisal is made in the event of death in order that the final income tax as well as the federal estate tax may be computed fairly and yet not be

excessive. For example, suppose Dr. Jones who has always filed his income tax on a cash basis, dies in March 1939, and leaves on his books unpaid business expenses of \$450.00, and uncollected accounts of \$8,000.00. The federal income tax which must be filed by the administrator or executor in March 1940 for the period from January, 1939 to the time of the doctor's death, must include not only the cash income and cash expense for that period, but also the accrued income and expense (the \$450.00 of unpaid expense items and the actual value of the \$8,000.00 worth of unpaid patients' accounts). It should not be difficult to understand why it is important that the actual value of say \$800.00 to \$1,600.00 rather than the book value of \$8,000.00 be used in computing the tax, particularly when in this case the rate of tax may go into the surtax brackets.

Of course there are many physicians whose general estate is not sufficiently large to make the question of federal estate taxes of importance, yet to those whose estate is sufficiently large this same appraisal is very important. For example, let us assume that Dr. Jones has not only \$40,000.00 of life insurance payable to named beneficiaries, but also a home worth say \$10,000.00, and other assets worth \$30,000.00. Again it is obvious why the actual value of the accounts receivable of \$800.00 to \$1,600.00 rather than the book value of \$8,000.00 be used in computing the federal estate tax, which in the first case would be negligible, and in the second case would be enough to demand a substantial tax. We have heard of cases where the accounts of an individual doctor have greatly exceeded these figures and although there should be no reason for such an accumulation, it would be very important to appraise them fairly in such a case. Similarly in any estimation of the possible estate tax while building that estate, it is imperative that not only the physical assets of the practice be computed but that the accounts be appraised and included in the computation.

In this connection, although it has been

(Continued on Page 544)

Department of Economics

L. FERNALD FOSTER, M.D., Secretary

WAGNER HEALTH BILL

S. 1620—76th Congress, 1st Session

HENRY A. LUCE, M.D.

President of the Michigan State Medical Society

DETROIT, MICHIGAN

This bill has received more attention than any other proposed health measure ever brought to the attention of those interested in public health. Not that it marks any sudden awakening of interest in health, but it appears like an attempt to capitalize in a political manner upon a topic of human interest.

No one, be he physician or layman, can be accused of lack of interest in public health. Public health, having such a general appeal and being of such accepted social value, becomes the easiest and most appealing approach to the extension of public agencies such as organized governments.

The history of the world has shown that astute politicians have quickly recognized the desirability of governmentally controlled health measures.

There is no argument between those opposed to the Wagner Bill and its proponents about the objectives of the bill. The difference of opinion is entirely in methods of approach.

Those objecting to the bill see federalized control with its potential loss of efficiency. Federal control to the liberty-loving average American means loss of an inalienable right. He might be willing to give up some so-called right were he confident that it would rebound to the general good, but there is little evidence, if any, to show that the present system needs radical change. It is freely admitted that present conditions need temporary emergency measures, but these measures should conform to generally accepted principles of distribution. The medical profession of this country yields to no group first place in the desire to conserve and protect the health of the public. Methods that have been proved and found superior to other methods are wholeheartedly supported by the medical profession. The American Medical Association's objective is and always has been public ser-

vice. The Hippocratic Oath is the oldest code of altruistic conduct of any profession.

For a period of years a certain number of people in this country have attempted to satisfy their ego drive by a social revolution of which medicine has been a part. The proponents of socialism find an easy approach towards their objectives when the attacks are directed towards health and physical welfare.

That some of the advocates of the proposals are conscientious and sincere in their hypothetical thinking can be assumed.

The first national manifestation of this stimulated trend took place in 1929 under the Committee on the Cost of Medical Care, which purposefully left in the minds of the public the first seeds of doubt of the efficiency of medical care in these United States.

Proponents of the socialization of medicine have capitalized these ideas and have presented their objectives by two methods of approach. First, by incorrect statements as to actual needs and supply; second, by propaganda to discredit the medical profession.

A committee, known as the Interdepartmental Committee to report on health and welfare, was the next national activity. This report came in July, 1938, and in substance further discredited medical services, laying open the door for socialistic thinking. Organized medicine considered their proposals later and found that the objectives were in harmony with what has always been the objectives of the profession but disagreed with the stated degree of needs. It further registered its disapproval of the methods of approach, noticeable with reference to compulsory health insurance and to the centralization of control.

The introduction into Congress of the Wagner Bill, on January 28, 1939, marked the attempt to incorporate into law the think-

ing and purposes of a group in this country who hold certain opinions regarding the rendering of health services to the people of this United States.

The Wagner Health Bill is designed under the guise of a humanitarian measure to put the Federal Government into the field of medical care and establish politically controlled medical service. It ranks with the Supreme Court packing attempt and the original reorganization efforts in its dangers to our American principles. It is even worse because its approach has a human appeal that makes it look innocuous.

One marvels at the skill of the authors of the bill—I say authors, because no one individual alone could have developed such an appealing measure with such far-reaching implications and dangers to our heritage of liberty and free enterprise as this—at least no one since the day when the Devil took the Lord to the high mountain and promised him everything did he but fall down and worship him.

Every one of the dollars for health measure—dollars that the individual states have delivered to the Federal Government—your money—must have the approval of the state plans, earmarked for it by the Chief of the Children's Bureau or the Surgeon General of the Public Health Service, or Social Security Board before the respective states can qualify.

The stage was set and the ground plans laid for the introduction of this bill and its hoped-for passage by a well-developed campaign of propaganda. The people have been led to believe that the expenditure of money alone will secure health.

The Wagner Bill, like the mosquito's bill that carries the malarial infection, if it penetrates our government, will transmit a political disease not amenable to quinine.

The Wagner Bill, in its present form, must be defeated that human liberty, individual responsibility, the right of free enterprise shall not perish, but that American traditions and Jeffersonian doctrines be maintained. American doctors of medicine will not "goose-step" for any political dictators and American medical men must not suffer their patients to be sacrificed on the altar of bureaucracy.

The ninetieth Annual Session of the House of Delegates of the American Medical Association, held in St. Louis, May 15-19, 1939, adopted without a dissenting vote

the report of the Reference Committee, which is summarized under twenty-two headings as follows:

1. The Wagner Health Bill does not recognize either the spirit or the text of the resolutions adopted by the House of Delegates of the American Medical Association in September, 1938.
2. The House of Delegates cannot approve the methods by which the objectives of the National Health Program are to be obtained.
3. The Wagner Health Bill does not safeguard in any way the continued existence of the private practitioners who have always brought to the people the benefits of scientific research and treatment.
4. The Wagner Health Bill does not provide for the use of the thousands of vacant beds now available in hundreds of church and community general hospitals.
5. This Bill proposes to make federal aid for medical care the rule rather than the exception.
6. The Wagner Health Bill does not recognize the need for suitable food, sanitary housing and the improvement of other environmental conditions necessary to the continuous prevention of disease.
7. The Wagner Health Bill insidiously promotes the development of a complete system of tax-supported governmental medical care.
8. While the Wagner Health Bill provides compensation for loss of wages during illness, it also proposes to provide complete medical service in addition to such compensation.
9. The Wagner Health Bill provides for supreme federal control; Federal agents are given authority to disapprove plans proposed by the individual states.
10. The Wagner Health Bill prescribes no method for determining the nature and extent of the needs for preventive and other medical services for which it proposes allotments of funds.
11. The Wagner Health Bill is inconsistent with the fundamental principles of medical care established by scientific medical experience and is therefore contrary to the best interests of the American people.
12. The fortunate health conditions which prevail in the United States cannot be dissociated from the prevailing standards and methods of medical practice.
13. No other profession and no other group have done more for the improvement of public health, the prevention of disease and the care of the sick than have the medical profession and the American Medical Association.
14. The American Medical Association would fail in its public trust if it neglected to express itself unmistakably and emphatically regarding any threat to the national health and well-being. It must, therefore, speaking with professional competence, oppose the Wagner Health Bill.
15. The House of Delegates would urge the development of a mechanism for meeting the needs for expansion of preventive medical services, extension of medical care for the indigent and the medically indigent, with local determination of needs and local control of administration, within the philosophy of the American form of government and without damage to the quality of medical service.
16. The fundamental question is how and when a state should be given financial aid by the Federal government out of the resources of the states as a whole, pooled in the Federal Treasury.
17. The bizarre thinking which evolves the system of Federal subsidies—sometimes called "grants-in-aid"—is used to induce states to carry on activities

suggested frequently in the first instance by officers and employees of the Federal government.

18. The use of Federal subsidies to accomplish such federally determined activities has invariably involved Federal control.

19. Any state in actual need for the prevention of disease, the promotion of health and the care of the sick should be able to obtain such aid in a medical emergency without stimulating every other state to seek and to accept similar aid, and thus to have imposed on it the burden of Federal control.

20. The mechanism by which this end is to be

accomplished, whether through a Federal agency to which any state in need of Federal financial assistance can apply, or through a new agency created for this purpose or through responsible officers of existing Federal agencies, must be developed by the Executive and the Congress, who are charged with these duties.

21. Such a method would afford to every state an agency to which it might apply for Federal assistance without involving every other state in the Union or the entire government in the transaction.

22. Such a method would not disturb permanently the American concept of democratic government.

MICHIGAN LEGISLATURE APPROVES VOLUNTARY GROUP MEDICAL CARE ENABLING ACT

The group medical care enabling bill (House Bill No. 215) was passed by the Michigan House of Representatives March 23, 1939, by an overwhelming majority of 78 to 5. Strong opposition was encountered

Calvert, Clancy, Courter, Dombrowski, Dykstra, Eaton, Espie, Feenstra, Fitzgerald, Gallagher, Gartner, Garvey, Gillespie, Goulette, Green, Guggisberg, Hampton, Handy, Harma, Harris, Hermann, Herrick, Higgins, Hooper, James, Jenema, Jespersen, Kaminski, Kilstrom, Kircher, Knox, Kowalski, Kronk, Landon, Legg, Loupee, MacKay, McIntosh,



SIGNING MICHIGAN'S GROUP MEDICAL CARE LAW

Governor Dickinson signed House Bill 215 on May 17, making voluntary non-profit medical care plans legal in Michigan. Left to right above are:

Ralph H. Pino, M.D., Detroit, Chairman, MSMS Committee on Distribution of Medical Care; S. L. Loupee, M.D., Dowagiac, only physician-member of the Michigan Legislature in 1939; Representative James B. Stanley, Kalamazoo, co-sponsor of the Bill; Warren G. Hooper, Albion, Chairman of the House Public Health Committee and co-sponsor of the Bill; Governor Luren D. Dickinson (seated); Senator Chester M. Howell, Saginaw, Chairman of the Senate Public Health Committee; Mrs. Dora H. Stockman, East Lansing, co-sponsor of the Bill; and Harold A. Miller, M.D., Lansing, Chairman of the Legislative Committee.

from the cultists who were insistent in their demands to be included in the group medical care bill. Through the continued and tactful personal contacts by the family physicians of the legislators, however, all damaging cult proposals were defeated.

The House Vote

Representatives voting *for* House Bill No. 215 were:

Acker, Adams (Charles P.), Adams (Clark J.), Allard, Barrett, Begick, Bird, Bolt, Braun, Buckley,

Murphy (Frank), Murphy (Jos. C.), Nagel (Jos. F.), Neller, Nichols, Odell, Post (James I.), Post (M. E.), Rawson, Remer, Root, Royce, Saul, Sawyer, Stanley, Stephens, Stockfish, Stockman, Swain, Thompson (Ruth), Thomson (John W.), Tibbits, Town, Walsh, Warner, Welsh, Weza, Wickman, Williams, Speaker.

Representatives voting *against* House Bill No. 215 were:

Graebner, Graham, Nowak, Rodesiler, Smith.

The following members were present and not voting:

Cumings, Deadman, Decker, Miles, Preston, Storey, Sumeracki, Faulkner.

The Senate Vote

Pressure from the cultists was extreme after the bill was sent to the Senate. Here again the men back home contacted their Senator friends and explained to them the merits of the proposal and emphasized the necessity for keeping damaging amendments from the bill so any corporation set up under the enabling act will be a strictly medical experiment. When the roll was called on May 4, 1939, the Senate had approved H. B. 215 without any weakening amendments.

The Senators voting *for* H. B. 215 were:

Baldwin, Benzie, Bischoff, Bishop, Bradley, Brake, Callaghan, DeLano, Diggs, Dignan, Dotsch, Fenner, Flynn, Hammond, Hittle, Howell, Isbister, Logie, Ludington, McCallum, Martin, Munshaw, Nowak, Paterson, Porter, Saur, Shea, Vanderwerp (Don), Vanderwerp (John), Wilkowski.

There were no votes against the bill in the Senate.

Governor Dickinson Signs Bill

Governor Dickinson signed the bill on May 17, 1939, in the presence of Harold A. Miller, M.D., Lansing, Chairman of the Legislative Committee of the Michigan State Medical Society, and Ralph H. Pino, M.D., Detroit, Chairman of the Committee on the Distribution of Medical Care. The bill became law with the signature of Governor Dickinson as the Legislature gave the bill immediate effect. Committees of the Michigan State Medical Society are now working hard on details of organizing a non-profit group medical care plan in Michigan to be designed in accordance with the provisions of the Enabling Act.

The complete text of the law follows:

Group Medical Care Enabling Act

State of Michigan
60th Legislature
Regular Session of 1939

HOUSE ENROLLED ACT NO. 65

An Act to provide for and to regulate the incorporation of non-profit medical care corporations; to provide for the supervision and regulation of such corporations by the state commissioner of insurance; and to prescribe penalties for the violation of the provisions of this act.

The People of the State of Michigan enact:

Section 1. It is the purpose and intent of this act, and the policy of the legislature, to promote a wider distribution of medical care and to maintain the standing and promote the progress of the science and art of medicine in this state.

Sec. 2. Any number of persons not less than 7, all of whom shall be residents of the state of Michigan, may form a corporation, under and in conformity with the provisions of this act, for the purpose of establishing, maintaining and operating a voluntary non-profit medical care plan, whereby medical care is provided at the expense of such corporation to such persons or groups of persons as shall become subscribers to such plan, under contracts which will entitle each such subscriber to definite medical and surgical care, appliances and supplies, by licensed and registered doctors of medicine in their offices, in hospitals, and in the home. Such other benefits may be added from time to time as the corporation may determine, with the approval of the commissioner of insurance. No contract by or on behalf of any non-profit medical care corporation shall provide for the payment of any cash or other material benefit by that corporation to the subscriber or his estate on account of death, illness or injury, nor be in any way related to the payment of any such benefit by any other agency. Medical care shall not be construed to include hospital service.

Any such non-profit medical care corporation shall be subject to regulation and supervision by the commissioner of insurance as hereinafter provided. Any such non-profit medical care corporation shall not be subject to the laws of this state with respect to insurance corporations or with respect to corporations except as provided in this act governed by the corporation laws, and no non-profit medical care corporation may be incorporated in this state except under and in accordance with the provisions of this act: *Provided, however,* That the provisions of sections 117 to 132, inclusive, of Act No. 327 of the Public Acts of 1931, as amended, and as hereafter amended, shall be applicable to all corporations formed under or governed by this act, except as herein otherwise specifically provided.

Sec. 3. The persons so associating shall subscribe to articles of association which shall contain:

First, The names of the associates, and their places of residence;

Second, The location of the principal office for the transaction of business in this state;

Third, The name by which the corporation shall be known, such name not to include the words insurance, casualty, surety, health and accident, mutual or other words descriptive of the insurance or surety business, and such name shall not be sufficiently similar to that of any insurance or surety company doing business in this or other states at the time of incorporation, to tend to create confusion in identity therewith, in the judgment of the commissioner of insurance;

Fourth, The purposes of the corporation;

Fifth, The term of existence of the corporation, which shall be for 30 years, or any multiple of 30 years, or in perpetuity;

Sixth, The time for holding of the annual meeting of the corporation;

Seventh, Any terms and conditions of membership therein which the incorporators may have agreed upon, and which they may deem it important to have set forth in said articles;

Eighth, Any other terms and conditions, not inconsistent with the provisions of this act, necessary for the conduct of the affairs of the corporation.

Sec. 4. Such articles shall be acknowledged by the persons signing the same before some officer of this state authorized to take acknowledgments of deeds, who shall append thereto his certificate of acknowledgment. All such articles shall be in triplicate.

cate and upon proper forms as prescribed by the commissioner of insurance. Before said articles of association shall be effective for any purpose, the same shall be submitted to the attorney general for his examination, and if found by him to be in compliance with this act, he shall so certify to the commissioner of insurance. Each corporation shall pay to the attorney general for the examination of its articles of association, or any amendments thereto, the sum of \$5.00. Each corporation shall pay to the commissioner of insurance a filing fee for its articles of association, or any amendments thereto, the sum of \$10.00. Such fees shall be covered into the state treasury for the benefit of the general fund.

Any corporation subject to the provisions of this act may, in its discretion, with the approval of the commissioner of insurance, and in the manner provided in its articles, amend its articles of association in any manner not inconsistent with the provisions of this act.

Sec. 5. The persons so associating, before entering into any contracts or securing any applications of subscribers, shall file in the office of the commissioner of insurance, together with triplicate copies of the said articles of association with the certificate of the attorney general annexed thereto, a statement showing in full detail the plan upon which it proposes to transact business, a copy of by-laws, a copy of contracts to be issued to subscribers, a copy of its prospectus, and proposed advertising to be used in the solicitation of contracts of subscribers. The commissioner of insurance shall examine the statements and documents so presented to him by the persons so associating, and shall have the power to conduct any investigation which he may deem necessary, and to hear such incorporators, and to examine under oath any persons interested or connected with the said proposed corporation. If, in the opinion of the commissioner of insurance, the incorporation or solicitation of contracts would work a fraud upon the persons so solicited, he shall have authority to refuse to license the said corporation to proceed in the organization and promotion of the association. If, upon examination of the said articles of association, the documents and instruments above mentioned, and such further investigation as the commissioner of insurance shall make, he is satisfied that (a) the solicitation of subscriptions would not work a fraud upon the persons so solicited; (b) the rates to be charged and the benefits to be provided are fair and reasonable; (c) the amount of money actually available for working capital is sufficient to carry all acquisition costs and operating expenses for a reasonable period of time from the date of issuance of the certificate of authority, and is not less than the sum of \$10,000.00; (d) the amounts contributed as the working capital of the corporation are repayable only out of surplus earnings of such corporation, and (e) adequate and reasonable reserves to insure the maturity of the contracts are provided, he shall return to such incorporators 1 copy of such articles of association, certified for filing with the county clerk of the county in which said corporation proposes to maintain its principal business office, and 1 copy to be certified by the commissioner of insurance for the records of the corporation itself, and shall retain 1 copy for his office files, and he shall deliver to such corporation a certificate of authority to commence business and issue contracts entitling subscribers to definite medical and surgical care, which contracts have been approved by him.

The said commissioner of insurance shall have power and authority, at any time to revoke, after reasonable notice and hearing, any certificate, order or consent made by him to the said corporation, to

proscribe applications for membership, upon being satisfied that the further solicitation of subscribers will work a fraud upon the persons so solicited, and he shall have authority to make such investigation from time to time as he may deem best, and grant hearings to such incorporators in their relation thereto. The commissioner of insurance shall have the same authority in respect to taking over and/or liquidating corporations formed and/or doing business under this act as is provided by chapter 3 of part 1 of Act No. 256 of the Public Acts of 1917, as amended.

Any dissolution or liquidation of a corporation subject to the provisions of this act shall be conducted under the supervision of the commissioner of insurance, who shall have all power with respect thereto granted to him under the provisions of law with respect to the dissolution and liquidation of insurance companies.

Sec. 6. The commissioner of insurance, or any deputy or examiner or any other person whom he shall appoint, shall have the power of visitation and examination into the affairs of any such corporation and free access to all of the books, papers and documents that relate to the business of the corporation, and may summon and qualify witnesses under oath, to examine its officers, agents or employes or any other persons having knowledge of the affairs, transactions and conditions of the corporation. The per diem, traveling and other necessary expenses in connection therewith shall be paid by the corporation.

Sec. 7. Each such corporation shall annually on or before the first day of March of each year file in the office of the commissioner of insurance a sworn statement verified by at least 2 of the principal officers of said corporation showing its condition on the thirty-first day of December, then next preceding, which shall be in such form and shall contain such matters as the commissioner of insurance shall prescribe. In case any such corporation shall fail to file any such annual statement as herein required, the said commissioner of insurance shall be authorized and empowered to suspend the certificate of authority issued to such corporation until such statement shall be properly filed.

Sec. 8. The board of directors of a non-profit medical care corporation shall have representation from the public and the medical profession of the state: *Provided*, That a majority of the directors shall be at all times persons approved by the officers of the medical profession duly organized to promote state-wide the science and art of medicine.

Sec. 9. A medical care corporation may, in its discretion, by its articles of association or its by-laws limit the benefits that it will furnish, and may divide such benefits as it elects to furnish into classes or kinds. In the absence of any such limitation or division of service, a non-profit medical care corporation shall be authorized to provide both general and special medical and surgical care benefits, including such service as may be necessarily incident to such medical care. A medical care corporation may, in its discretion, limit the issuance of contracts to residents of counties as specified by the by-laws.

Sec. 10. Each doctor of medicine, licensed and registered under Act No. 237 of the Public Acts of 1899, as amended, practicing legally in this state shall have the right to register with the corporation for general or special medical care, as the case may be. A non-profit medical care corporation shall impose no restrictions on the doctors of medicine who treat its subscribers as to methods of diagnosis or treatment. The private physician-patient relationship

shall be maintained and the subscriber shall at all times have free choice of doctor of medicine. Any employe, agent, officer or member of the board of directors of any such corporation who shall influence or attempt to influence any person in the choosing and selecting of his own physician, shall be guilty of a misdemeanor, and upon conviction thereof shall be punished as provided by the laws of this state.

Sec. 11. A non-profit medical care corporation shall, before beginning business, and at all times thereafter while engaged in business, maintain reserves in such form and amount as the commissioner of insurance may determine. *Provided*, That the funds of any such corporation shall be invested only in securities permitted by the laws of this state for the investment of assets of life insurance companies.

Sec. 12. All medical care rendered on behalf of a non-profit medical care corporation shall be in accordance with the accepted medical practice in the community at all times.

A non-profit medical care corporation shall not furnish medical care otherwise than through doctors of medicine, licensed and registered under Act No. 237 of the Public Acts of 1899, as amended.

Sec. 13. Each non-profit medical care corporation may, in its discretion, receive and accept from governmental agencies payments covering all or part of the cost of subscriptions to provide medical care for needy persons. Each non-profit medical care corporation may in its discretion receive and accept from private agencies, corporations, associations, groups, or individuals, payments covering all or part of the cost of subscriptions to provide medical care for needy and other persons. All contracts for medical care shall be between the medical care corporation and the person to receive such care.

Sec. 14. No action at law based upon or arising out of the physician-patient relationship shall be maintained against a non-profit medical care corporation.

Sec. 15. Each corporation subject to the provisions of this act is hereby declared to be a charitable and benevolent institution, and its funds and property shall be exempt from taxation by the state, or any political subdivision thereof.

Sec. 16. Any person, or any agent or officer of a corporation, who violates any of the provisions of this act, or who shall make any false statement with respect to any report or statement required by this act, shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished as provided by the laws of this state.

Sec. 17. Should any provision or section of this act be held to be invalid for any reason, such holding shall not be construed as affecting the validity of any remaining portion of such section or of this act, it being the legislative intent that this act shall stand, notwithstanding the invalidity of any such provision or section.

This act is ordered to take immediate effect.

MYLES F. GRAY,

Clerk of the House of Representatives.

FRED I. CHASE,

Secretary of the Senate.

May 17, 1939.

Approved LUREN D. DICKINSON.

THE WOMAN'S AUXILIARY

Organized medicine realizes today more and more the need of good public relations. State Medical Societies have devised various means of developing publicity agencies—agencies informed and equipped to disseminate facts concerning scientific medicine and the economics of the medical profession.

Obviously enough, the fountain head of good medical public relations must be the profession itself—the profession through its organized components and through its individual members. Next in the program should be those close to the medical profession and those who, by association, are cognizant of many of the facts relating to the practice of medicine. Foremost in this relationship are the physicians' wives. They live the organized medicine and share with their husbands the success or failure of its practice. They maintain, in their daily lives, a myriad of lay contacts that are not experienced by the practitioner of medicine. These contacts are usually with the thinking, civic-minded groups who desire the truth, but unfortunately do not always receive it.

It would seem, therefore, as though the component groups of organized medicine should utilize first, as public relations groups, an organization of their wives. If a Woman's Auxiliary exists within a county Medical Society, it should be instructed, advised and guided in a well developed program of medical publicity. It should not be allowed to spend its energy and enthusiasm on unimportant and irrelevant pursuits.

County Medical Societies which do not boast of Woman's Auxiliaries are missing an opportunity to sell themselves and their organization to a public anxious to know the facts.

The wives of physicians have an equal stake with their husbands in the problems of organized medicine. They have the knowledge, the enthusiasm and the public contacts. In our desire to develop real public relations, why not utilize this group within our midst?

COUNCIL AND COMMITTEE MEETINGS

1. Wednesday, May 3, 1939—Cancer Committee—Detroit Club, Detroit—6:30 p. m.
2. Thursday, May 11, 1939—Medico-Legal Committee—Hotel Porter, Lansing—6:00 p. m.
3. Sunday, May 21, 1939—Advisory Committee on Syphilis Control—Hotel Statler, Detroit—5:00 p. m.
4. Thursday, June 8, 1939—Executive Committee of the Council—Hotel Porter, Lansing—2:00 p. m.

Executive Committee of the Council

May 7, 1939

HIGHLIGHTS:

1. Incorporation of "Medical Security, Inc.," authorized in accordance with Michigan's new voluntary group medical care enabling act—the first of its kind in the United States.

2. New postgraduate program in venereal diseases outlined.

3. Representatives of the MSMS chosen to serve on the Board of Directors of the "Michigan Society for Group Hospitalization."

4. Ruling made that a physician must be in good standing in the county of his original membership before his transfer to a second county in Michigan may be accepted.

1. *Roll Call*.—Meeting was called to order at 12:30 P. M., by Dr. P. R. Urmston, Chairman, in the Statler Hotel, Detroit, with all members present.

2. *Minutes*.—The minutes of the meeting of April 16 were read and approved.

3. *Financial Report*.—The monthly financial report was presented. Bills Payable were ordered paid on motion of Drs. Moore-Carstens. Carried unanimously. The bond report was presented. Motion of Drs. Haughey-Moore that bond money (payment of interest or differences of exchange) shall in future be segregated in the M.S.M.S. books. Carried unanimously.

Motion of Drs. Riley-Carstens that necessary shelving for the Executive Office be purchased. Carried unanimously.

4. *A.M.A. Delegates*.—Drs. Gruber and Luce requested advice on various matters which might be presented in the A.M.A. House of Delegates. These were discussed by all present, and the Delegates were instructed to use their judgment in these matters in St. Louis.

5. *Wagner Bill (S-1620)*.—Report on answers of U. S. Congressmen re this proposed legislation was presented by the Executive Secretary.

6. *Committee on Distribution of Medical Care*.—Dr. Pino reported on meeting of April 26, and read the proposed Articles of Incorporation, section by section. Various charts were presented. The legal aspects would be reported to the M.S.M.S. on May 11.

Dr. Luce reported on the necessity for immediate action, through the incorporation of "Medical Security, Inc.," to prove that we are ready and willing to render service to the people. Dr. Carstens outlined the plan, step by step: (a) the employment of the executive director; (b) selection of incorporators; (c) the incorporation; (d) the selection of the board of directors of the corporation.

Motion of Dr. Brunk seconded by several that the members of the Executive Committee plus the President, President-Elect, the Secretary and the Chairman of the Committee on Distribution of Medical Care be incorporators of the new corporation, "Medical Security, Incorporated." Carried unanimously.

Mr. Burns was directed to handle the administrative details of "Medical Security, Incorporated."

Relative to securing names as members of the board of directors (including the medical men): Motion of Drs. Moore-Brunk, that each councilor be requested to send in a list of names re qualified laymen as members of the board of directors of "Medical Security, Incorporated," including a biographical sketch of each nominee. Carried unanimously. The Committee on Distribution of Medical Care recommended that representation on the

board should be had from Industry, Labor, Agriculture, Medicine, Philanthropy, etc.

A special meeting of the Executive Committee of the Council is to be called in Lansing on June 1 for the purpose of giving final approval to the Articles of Incorporation, etc., after same have been drafted by the attorney. Mr. Burns was instructed to obtain an attorney to help with the incorporation, and was also instructed to secure advice from the Insurance Department, re names of good trained insurance lawyers.

7. *Health Commissioner* Don W. Gudakunst discussed several matters: (a) the national interest relative to Michigan's voluntary group medical care experiment, and the need for one plan to cover the whole state; (b) the additional subsidies for the venereal disease program in Michigan, which are being increased from \$77,000 to \$137,000 per annum. In the past the money has been spent for the purchase of drugs, the development of laboratory service, and the education of the public. In future, additional programs can be added including the employment of persons to check lapsed cases in the larger centers. Motion of Drs. Haughey-Riley that the Executive Committee of the Council approve Dr. Gudakunst's plan in principle and refer same to the Advisory Committee on Syphilis Control, to work out the details and report back to the Executive Committee. Carried unanimously.

8. *Child Guidance Institute*. Professor L. J. Carr of Ann Arbor presented the background and work of the Child Guidance Institute, in answer to questions of the Executive Committee. He was thanked for his attendance and information.

9. *Legislative Committee report* was presented by the Executive Secretary: HB-215, HB-145, SB-129, SB-376 (Afflicted Child); HB-631 and HB-632 (Afflicted Child and Crippled Child appropriations); SB-93 and HB-392 (Use of Insanity Pleas); SB-304 (Laboratory Bill).

A letter from the President of the Michigan Hospital Association was read, thanking the MSMS for its coöperation and help in connection with the "Michigan Society for Group Hospitalization." The request of the Michigan Society for Group Hospitalization that the M.S.M.S. appoint six physicians to serve on its board of directors, was received.

Motion of Drs. Carstens-Haughey that the following names be presented to the Michigan Society for Group Hospitalization as the M.S.M.S. representatives: Drs. A. S. Brunk, Detroit; H. F. Becker, Battle Creek; S. W. Hartwell, Muskegon; Wm. S. Jones, Menominee; V. M. Moore, Grand Rapids; Wm. S. Reveno, Highland Park, and that Dr. Brunk be recommended to serve on the Executive Committee of the Michigan Society for Group Hospitalization. Carried unanimously.

The matter of the appropriation for the Afflicted Child and Crippled Child, as presented in HB-631 and 632, was discussed. This was referred to the Legislative Committee, with the suggestion that if the Legislature insists on allotting money to counties on the basis of population for the care of these children, that all overage of state payments in each county should be paid by the state and re-billed back to the counties.

10. *Annual Meeting.* Secretary Foster reported that 33 of the 38 out of state speakers have definitely accepted, and the last five would be lined up in the next 10 days; that the Press Relations Committee has been appointed, with Dr. Duane Miller of Grand Rapids again agreeing to act as Chairman. The Executive Committee approved this report.

11. *New Sections in the M.S.M.S.* Secretary Foster stated that certain groups were discussing the possibility of creating sections. It was felt that committees would be preferable and would serve the purpose just as well as Sections. The matter was tabled for discussion at the next meeting of the Executive Committee of the Council.

12. *Medico-Legal Committee Member.* The Chair nominated the name of Dr. L. G. Christian of Lansing as a member of the Medico-Legal Committee, to take the place made vacant by the death of Dr. Angus McLean. Motion of Dr. Carstens-Riley that the appointment be confirmed. Carried unanimously.

13. *Membership Transfers.* Dr. Riley presented the problem of transfers of membership from one county in Michigan to another county in Michigan, wherein a physician does not pay all the dues in the original county. The Executive Committee ruled that a physician must be in good standing in the original county before his transfer may be accepted by the second county.

14. *"Political Medicine and You,"* a pamphlet containing interesting information, was briefly discussed and placed on the table for discussion at the next meeting of the Executive Committee of the Council.

15. *Annual Meeting of the Council* was scheduled for Sunday, Sept. 17, 1939 at Blyfield Country Club, Grand Rapids, beginning with a 6:30 p. m. dinner.

16. *Change in By-Laws.* The Executive Committee discussed the advisability of the amendment to Chapter 4, Section 4, of the by-laws, which sets a stated salary for the Secretary, and referred it to the Council at its August meeting, as a matter for possible recommendation to the House of Delegates.

17. *Meeting of National Medical Assn.* Motion of Drs. Brunk-Carstens that approval be granted to suggestion that this Association meet in Detroit in 1940.

18. *Adjournment.* The meeting was adjourned at 10 p. m.

SUPPLEMENTARY ROSTER

The following physicians, whose names did not appear in The Directory Number of THE JOURNAL, are members of the Michigan State Medical Society.

Alpena County

Hier, Edward Alpena
Newton, W. B. Alpena

Berrien County

Hart, Russell T. Niles
King, Frank A., Sr. Benton Harbor
Vary, Edwin P. Flint

Eaton County

Sheets, A. G. Eaton Rapids

Grand Traverse-Leelanau-Benzie

Willard, W. G. Benzonina

Ionia, Montcalm

Botting, A. J. Portland
Holland, A. E. Belding

Kent County

Bettison, Wm. L. Grand Rapids
Browning, Eugene S. Grand Rapids
Eggleston, H. R. Grand Rapids
Freyling, Robert Grand Rapids
Gibbs, F. F. Grand Rapids
Mitchell, H. C. Grand Rapids
Moleski, Leo Grand Rapids
Mollman, Arthur Grand Rapids
Pyle, H. J. Grand Rapids
Reus, Wm. F. Jamestown

Menominee County

Berg, Lawrence A. Centerville

Oakland County

Stahl, Harold F. Oxford

Oceana County

Flint, Charles Hart

Saginaw County

Button, A. C. Saginaw
Murray, Chas. R. Saginaw
Ryan, M. D. Saginaw
Sargent, Donald V. Saginaw
Test, Frederick E. Saginaw

Washtenaw County

Smith, Nelson M. Ann Arbor

Wayne County

Aaron, Charles D. Detroit
Athay, Roland Detroit
Atler, Lawrence R. Detroit

Bailey, Carl C. Detroit
Baker, Howard B. Detroit
Barnett, Louis L. Detroit
Baskt, Joseph Y. Detroit
Beach, Watson Detroit
Berge, Clarence A. Detroit
Berris, J. M. Detroit
Bicknell, Nathan J. Detroit
Buchanan, W. Paul Detroit
Burnstine, Julius Y. Detroit
Cadieux, Henry W. Detroit
Chapman, Everett L. Detroit
Chatel, Arthur N. Detroit
Clark, Harry L. Detroit
Clark, Raymond Lee. Detroit
Cobane, John H. Detroit
Cohen, H. H. Eloise
Cohen, H. Herbert Eloise
Connelly, Basil L. Detroit
Crawford, Albert S. Detroit
Davidow, David M. Detroit
Dawson, F. E. Detroit
Dawson, W. A. Detroit
Diebel, William H. Detroit
Ducey, Edward F. Detroit
Eakins, Frederick J. Dearborn
Edmonds, W. N. Detroit
Eisman, Clarence H. Detroit
Falk, Ira E. Detroit
Fenech, Harold B. Detroit
Gannan, Arthur M. Detroit
Garner, H. B. Detroit
Gitlin, Charles. Detroit
Goldsmith, Joseph D. Detroit
Gruhzit, Oswald M. Detroit

Grosse Point Shores

Hackett, Andrew R. Detroit
Hammer, Charles A. Detroit
Hawkins, James W. Detroit
Hickey, Joseph Detroit
Hillier, Leland G. Detroit
Hulse, Warren L. Detroit
Isaacson, Arthur Detroit
Johnson, Ralph A. Detroit
Johnston, Joseph Andrew. Detroit
Jonikaitis, Joseph J. Detroit
Joyce, Stanley J. Detroit
Juliar, Benjamin Detroit
Katzman, I. S. Detroit
Keating, Thomas F. Detroit
Kennary, James M. Detroit
Kersten, Werner Detroit

Knaggs, Charles W. Detroit
Kohn, A. Max. Detroit
Kokowicz, Raymond J. Detroit
Kopel, Joseph O. Detroit
Kovan, Dennis D. Detroit
Kulaski, Chester H. Detroit
LaFerte, A. D. Detroit
Leithauser, Daniel J. Detroit
Lilly, Vernon S. Detroit
Long, John J. Detroit
Loranger, Guy L. Detroit
Lorber, Joseph H. Detroit
Marsh, Alton Ray. Detroit
Martinez, Pedro O. Detroit
McCormick, Frank T. Detroit
McGuire, Ruth M. Detroit
McMehen, Charles E. Detroit
Merriman, K. S. Detroit
Meyers, Maurice Detroit
Moloney, J. Clark. Detroit
Nagel, Oscar. Eloise
Naylor, Archibald E. Detroit
Nolting, Wilfred S. Detroit
Noth, Paul H. Detroit
Pierce, Howard W. Detroit
Rieckhoff, Geo. C. Detroit
Rohde, Paul C. Detroit
Rosenzweig, Saul. Detroit
Rothbart, Harold B. Detroit
Rucker, Julian Joseph. Detroit
Ruskin, Samuel H. Eloise
Sandweiss, David J. Detroit
Scruton, Foster D. Detroit
Sellers, Charles W. Detroit
Shaffer, Joseph H. Detroit
Sheridan, Chas. R. Detroit
Sheridan, Charles R. Detroit
Slevin, John George. Detroit
Spitzley, William A. Detroit
Stubbs, C. T. Detroit
Swanson, Cleary N. Detroit
Tryon, Mary Detroit
Tyson, William E. E. Detroit
Van Nest, A. E. Detroit
VanRhee, George. Detroit
Wax, John H. Detroit
Wilson, Frederic S. Detroit
Wilson, John D. Detroit
Winfield, James M. Detroit
Yates, H. Wellington. Detroit
Zielinski, Charles J. Detroit
Zindler, George A. Detroit

WOMAN'S AUXILIARY

President—Mrs. P. R. Urmston, 1862 McKinley Avenue, Bay City, Michigan
Sec.-Treas.—Mrs. R. E. Scrafford, 2210 McKinley Ave., Bay City, Michigan
Press—Mrs. J. W. Page, 119 N. Wisner Street, Jackson, Michigan

Bay County

The Women's Auxiliary to the Bay County Medical Society held their regular monthly meeting, April 12, when twenty-two members met at the Elks Club for dinner at 6:15 o'clock.

Mrs. A. D. Allen, the new president, presided at her first meeting.

Plans were made for entertaining the ladies of the Saginaw County Auxiliary at a tea on Tuesday, May 9th. The tea will be held at the Bay City Country Club from 5:00 until 6:00 o'clock.

The meeting was turned over to the program chairman, Mrs. W. R. Ballard, who introduced Mrs. E. J. Mier, president of the inter-club council and district director for P.T.A., who gave an interesting talk on our present welfare legislation. Mrs. Raymond Riley then led a discussion on facts about health insurance.

Calhoun County

The Women's Auxiliary of the Calhoun County Medical Society met Tuesday evening, April 4, for seven o'clock dinner at the Fiddle and Bow. Thirty-five members and ten guests were present. Following dinner, a business meeting was held, conducted by the president, Mrs. C. G. Wencke, at which time plans were made to entertain the state president and secretary in May.

The following officers for next year were elected:

President—Mrs. Leland Keagle
President-elect—Mrs. Kenneth Lowe
Secretary—Mrs. George Slagle
Treasurer—Mrs. Richard Stiefel

Mrs. C. W. Brainard was in charge of the program, which consisted of moving pictures and travelogue by Dr. and Mrs. H. Kolvoord of their recent trip around the world.

Jackson County

The Auxiliary held its regular April meeting, Tuesday evening, the 18th, at the Hotel Hayes. Following the dinner, Mrs. Charles B. Lesser talked on her trip to Palestine last summer. Her interesting experiences were vividly portrayed by her fine choice of words. There were two state officers present, Mrs. P. R. Urmston, president, who read a brief history of the State Auxiliary, and Mrs. R. E. Scrafford, secretary.

A short business meeting was then conducted by Mrs. Alter, the president. Mrs. E. O. Leahy reported progress of the Auxiliary projects, and Mrs. Wilson gave a brief treasurer's report. Mrs. J. C. Smith, chairman of the Nominating Committee, read the following ballot, which was unanimously adopted:

President—Mrs. Arthur M. Shaeffer
Vice President—Mrs. G. R. Bullen
Secretary—Mrs. Wm. Lake
Treasurer—Mrs. N. D. Wilson

Kalamazoo County

The Woman's Auxiliary of the Kalamazoo Academy of Medicine met the evening of April 18, 1939, at the home of Mrs. Benjamin Nibbelink. A bountiful cooperative dinner was served to thirty-six members.

Mrs. S. E. Andrews reported plans for the tea to be given at the Civic Auditorium on May 5, for the Michigan State Nurses who will be in the convention here. Arrangements are being made by Mrs. Andrews with Mrs. W. O. Jennings as co-chairman.

Mrs. Ricker of the Kalamazoo Public Library staff, presented an interesting program, showing the library film and discussing the hospital service which the library maintains.

Kent County

The hobby show, thanks to the unflagging efforts of Mrs. O. H. Gillett and her committee, was most successful and Mrs. P. R. Urmston, president of the state auxiliary and Mrs. Royston E. Scrafford, secretary-treasurer of the state organization were honor guests on this occasion. More than 100 members attending the tea were enjoyably entertained with delightful musical selections and an amazing skit.

Outstanding among the exhibits was Mrs. William J. Butler's really fine woman's head which she had sculptured. Mrs. Leon DeVel showed some attractive sketches of her children and also exhibited some old world pewters. There was a doll's house completely equipped and lighted, belonging to Mrs. Robert M. Eaton. Mrs. Henry P. Kooistra displayed old medical instruments and Mrs. J. E. Meengs, a medicine cabinet 300 years old. There were fine pieces of needlework, a collection of Chinese trapestries, clothing and dishes, unusual silver spoons, old snuff boxes, old glass and even a culinary booth.

Mrs. Wallace H. Steffensen and Mrs. Joseph C. Tiffany planned the carnival and dance which took place at the Boat and Canoe Club on May 6. At the annual luncheon meeting held May 10 at Blythefield Country Club, Dr. William R. Torgerson, president of the Kent County Medical Society, was guest speaker.

Washtenaw County

The bridge tea and fashion show, given April 21 in the Michigan League by the Washtenaw Medical Auxiliary, proved to be an attractive social event as well as a successful means of raising funds for the philanthropic projects of the society.

Members of the auxiliary modeled the gowns, suits and coats from Jacobson's Store, and Mrs. Vernon S. Dick played harp selections during the show.

The coffee table, placed in the center of the course, was centered with an unusual arrangement of spring flowers in pastel shades. A gay spring-time effect was produced by potted geraniums placed on each of the forty tables and given later as prizes.

MICHIGAN'S DEPARTMENT OF HEALTH

DON W. GUDAKUNST, M.D., Commissioner
LANSING, MICHIGAN

LOCAL HEALTH DEPARTMENTS HONORED

Seven city and county health departments in Michigan have been awarded honors in the annual National Health Conservation Contest sponsored by the American Public Health Association and the Chamber of Commerce of the United States.

Top honors in its class went to Grand Rapids for the most effective public health program in 1938 among all United States cities of 100,000 to 250,000 population. Dr. John Lavan is director of this department. Detroit's health department under the direction of Dr. Henry F. Vaughan again received a special award among cities which have won first awards on two or more previous occasions.

In the Rural Health Conservation Contest, financed by the W. K. Kellogg Foundation of this state, Michigan's rural health departments took five of the eight awards of merit in the northeastern district. Departments thus honored and their directors include the following: Mecosta-Osceola District Health Department, Dr. M. C. Igloe; District No. 7 Health Department including Clare, Gladwin and Arenac counties, Dr. E. V. Thielhoff; Saginaw County Health Department, Dr. V. K. Volk; Alger-Schoolcraft Health Department, Dr. E. J. Brenner; and Chippewa County Health Department, Dr. David Littlejohn.

Awards are made not necessarily to the healthiest communities, but rather on the effectiveness with which each community is meeting its health problems. Each community is appraised on what measures it takes: 1. To provide and safeguard its water supply; 2. To furnish adequate and safe sewage disposal; 3. To reduce infant and maternal deaths; 4. To combat tuberculosis and syphilis; 5. To protect its citizens against other communicable diseases; 6. To insure healthy children; 7. To protect and safeguard its milk and other foods; 8. To promote effective coöperation with its physicians and dentists in furnishing necessary services to all those who need them; and 9. To enlarge and improve its lay-understanding of ways and means of preventing sickness and death and of maintaining good health.

TUBERCULOSIS CONTROL INSTITUTES

The Michigan Department of Health is sponsoring a series of institutes on tuberculosis control which will be held for public health personnel throughout the state starting May 15.

The institutes will be held at Gaylord May 15 and 16, at Powers May 18, Escanaba May 19, Mt. Pleasant May 22 and 23, and Lansing May 25 and 26. In addition to the personnel of the local health departments, a cordial invitation to attend has also been extended to other interested nurses and physicians.

The program of the institutes will feature the medical aspects of tuberculosis control and the part played by the public health nurse. The diagnosis and treatment of tuberculosis from the point of view of the sanatorium specialist will also be presented.

The institute speakers will include Miss Helen

Bean, R.N., director of the Bureau of Public Health Nursing, and Dr. A. W. Newitt, director of the Bureau of Epidemiology, of the Michigan Department of Health; Miss Fannie Eshleman, supervisor of nurses at the Henry Phipps Institute of Philadelphia; Miss Blanche Harstine, R.N., of the Detroit Department of Health; Mr. T. J. Werle of the Michigan Tuberculosis Association; Dr. J. W. Towey of the Pinecrest Sanatorium at Powers; Dr. Joseph Egle, superintendent of the Northern State Sanatorium; Dr. A. D. Calomeni of the Saginaw County Tuberculosis Hospital; and Dr. C. J. Stringer of the Ingham County Tuberculosis Sanatorium.

COMMUNICABLE DISEASE PREVALENCE

A report of communicable disease prevalence during the first quarter of 1939 compiled by the Bureau of Records and Statistics indicated that scarlet fever had the highest incidence during this period. There were 6,902 cases of scarlet fever reported during the quarter compared with a five-year mean of 6,721 cases for the same period.

Whooping cough was below the norm with 2,754 cases reported compared with the mean of 3,200 cases. Diphtheria cases totaled 131 for the quarter compared with the mean of 155.

Pneumonia cases totaled 1,729 compared with the mean of 2,040. Reported cases of tuberculosis were above the five-year mean of 1,382 cases. There were 1,518 cases reported during the first quarter of 1939.

Smallpox cases continue to show an increasing incidence, indicating the need for more wide-spread vaccination of susceptible persons. There were 177 cases reported during the first quarter, whereas the five-year mean for this period was but 39 cases. Measles cases dropped far below the five-year mean of 12,043 cases, there being but 4,768 cases reported during the first quarter.

Twenty cases of typhoid fever were reported compared with the mean of 43 cases. Meningitis cases totaled eight compared with the mean of 24. There was one case of poliomyelitis compared with the mean of six cases.

Syphilis case reports continue to increase as they have for the past few years as a result of the wide-spread educational campaign in this field. There were 3,440 cases of syphilis reported during the first quarter of 1939. The five-year mean reported for this period was 2,022 cases. Gonorrhea case reports have not kept pace with the increase in syphilis reports and fell below the five-year mean for the first quarter of 1939. There were 1,468 cases of gonorrhea reported compared with the five-year mean of 1,533 cases.

NEW COUNTY HEALTH DEPARTMENT

The St. Joseph County Board of Supervisors by unanimous vote have approved the organization of a full time county health department for that area, thus becoming the 60th Michigan county to organize such a full time local health service.

The action of the board of supervisors followed a survey of similar departments operating in other counties which had been made by a committee of physicians and supervisors. The new department will be organized as soon as the usual state and federal subsidies can be arranged.

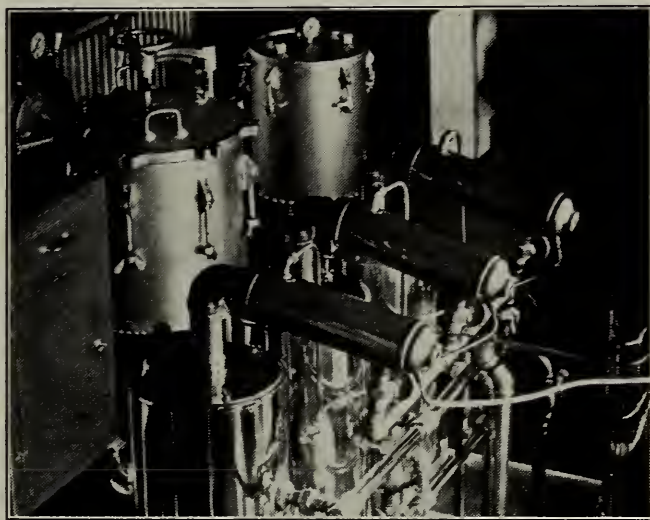
With but 23 counties not yet provided with health departments, Michigan is approaching its objective of full time health service under local supervision in every county. No county which has organized such a department since the 1927 enabling act has ever discontinued the service.

(Continued on Page 530)

✓✓✓ TRIPLE-CHECK FOR ABSOLUTE PURITY

More and more physicians are depending upon the J. F. Hartz Laboratory for pharmaceuticals that are **pure**.

Since 1897, the Hartz Laboratory has endeavored to manufacture and supply the medical profession with pure, dependable, modern pharmaceuticals at fair prices; and to give the best possible service.



As illustrated above, water in Hartz products is made extra safe with triple-distillation. No air exposure. Multiple traps and baffles insure extra purity.

This distilled water is chemically and bacteriologically pure,

free from pyrogenic impurities, including bacterial toxins — thus preventing dangerous reactions. After ten days in culture, the water is released for use only after tests show absolute purity.

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KEEPS PACE WITH MODERN MEDICINE

PHARMACEUTICAL MANUFACTURERS • MEDICAL SUPPLIES

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IT HAS STOOD THE TEST

THE one urge that transcends all others in the physician's mind when he prescribes a feeding formula for a baby is to obtain the best physical development of which the child is capable.

We are continually receiving very gratifying reports from physicians who prescribe Lactogen in their infant feeding cases. Furthermore, extensive tests of Lactogen feeding on large groups of infants under supervision of competent pediatricians have proved to their satisfaction that Lactogen is very successful as a routine infant food as well as for the supplemental feeding of the newborn.

If you have not as yet tried Lactogen, we urge you to do so.



No laity advertising. No feeding directions given except to physicians.



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155 East 44th Street... New York, N. Y.

DENTISTRY FOR CHILDREN

A series of postgraduate lectures and clinics in dentistry for children will be sponsored by the Bureau of Public Health Dentistry of the Michigan Department of Health during the latter part of May and the first three weeks in June. The Postgraduate Division of the University of Michigan School of Dentistry is coöperating in this program.

The course combining a day of operating with an evening lecture-clinic and discussion will be open to practicing dentists at 29 centers throughout the state. The dentists taking the course will be limited to 12 in each place. There is no tuition fee. The lecturers and clinicians, who have had much training in children's dentistry, will include Drs. D. G. Bills of Lansing, S. C. Brown of Ithaca, E. V. Finley of Union City, R. B. Fox of the Michigan Department of Health, W. J. Pelton of the United States Public Health Service, A. E. Seyler of Detroit, C. R. Taylor of Kadoka, South Dakota, and H. M. Wilbur of Plainwell.

The course in dentistry for children will be offered at the following centers: Adrian, Bad Axe, Benton Harbor-St. Joseph, Big Rapids, Birmingham, Cadillac, Dearborn, Flint, Greenville, Howell, Ionia, Lapeer, Ludington, Manistee, Midland, Monroe, Mount Clemens, Muskegon, Niles-Dowagiac, Owosso, Petoskey, Pontiac, Sandusky, Sturgis-Three Rivers, Traverse City, Vassar, West Branch, Wyandotte, and Ypsilanti.

The complete program may be obtained upon request from the Bureau of Public Health Dentistry, Michigan Department of Health, Lansing.

NEW LABORATORIES REGISTERED

The Bureau of Laboratories has announced that the following laboratories have been registered for making examinations in the serodiagnosis of syphilis:

Grosse Pointe Hospital Laboratory (Reg. No. 244), 4535 Cadieux Road, Grosse Pointe, Michigan.

Kalamazoo State Hospital Laboratory (Reg. No. 48), Kalamazoo, Michigan.

Oaklawn Hospital Laboratory (Reg. No. 204), Marshall, Michigan.

Bagley Medical Group Laboratory (Reg. No. 245), 12922 W. Warren Avenue, Dearborn, Michigan.

Goodrich General Hospital Laboratory (Reg. No. 246), Goodrich, Michigan.

The editor of the *Malaya Tribune*, Selangor, F.M.S., received the following letter from a native who was applying for a position:—

"Dear sir, very honored and respected.

"I asking for job. I can do any kind of works by virtue of my flexible brain and very advanced training. I passed matriculation in a very large college in ———

"The flexible brain I have in my possession will bend towards any kind of works your honor yoking on me. I mathematics passing very good credit, making very good machine-like work; modern calculating machine simply eclipsed by my brain. English I passing with credit so I can be burdened with correspondence writing. . . .

"If your honor will be good enough to employ me, I will in duty bound always pray for your honor's long life. My prayers have always been heard as I always pray very loud. If wanting my services, I can come suddenly. Putting myself at your honor's large feet, I pray to become your honor's humble and faithful servant. I remain, your Godsend servant."—*Efficiency Magazine*.

CORRESPONDENCE

Berrien County Medical Society
Benton Harbor, Michigan
April 24, 1939.

L. Fernald Foster, M.D.,
328 Shearer Building,
Bay City, Michigan.

Dear Dr. Foster:

At the last meeting of the society I was instructed to write and inform you that Berrien County Medical Society supported the work of the Michigan State Medical Society on the question of Hospitalization and Sickness Insurance and further that it would support the society in its work along this line with the present session of the Michigan State Legislature.

Yours truly,
R. C. CONYBEARE, M.D., *Secretary*.

* * *

May 3, 1939.

Dr. L. Fernald Foster,
Secretary of M.S.M.S.,
2020 Olds Tower,
Lansing, Michigan.

Dear Sir:

In this peculiar day and age the physician is the easiest prey for those people who try to get something for nothing and use no discretion in the tactics employed to gain their goal. To guard against just such undesirable situation what could be better than to have the protection of the Michigan State Medical Society?

I have been a member of the M.S.M.S. for a good many years and yet had no opportunity to know nor to investigate their various activities. Memberships in societies can become a habit of just paying yearly dues! Until recently the marvelous work done by the society towards those who encounter unavoidable and unnecessary legal controversies was definitely placed in the background and thus one of the Michigan State Medical Society's strong talking points meant nothing to me.

The rapidity with which the organization rallies to the cause of protecting its members from embarrassing legal cases and the responsibilities it undertakes for those in trouble not only helps to prevent grey hair but saves an amiable disposition as well.

What could be more gratifying than a friend in need—one to confide in and trust in your distress! The Michigan State Medical Society is just such a friend, a friend that comes to your aid without question, helps greatly in your urgent need.

With only *one* of the M.S.M.S. marvelous activities mentioned, namely, legal aid, it is worth becoming a member of the society and protecting yourself from unforeseen probabilities, and at the same time saving your good disposition!

Sincerely,
(Signed) ROMAN SADOWSKI, M.D.

* * *

May 8, 1939.

Michigan State Medical Society,
L. Fernald Foster, M.D., Secretary,
Lansing, Michigan.

Dear Doctor Foster:

I am pleased to write and express my appreciation of the help given me by the Michigan State Medical

JUNE, 1939

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"VANOL"
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FOR
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Vanol is a greaseless petroleum product with an aqua absorption of at least twenty-five per cent. It's neutral and will not dry up or leave the skin dry.

Vanol will carry any medication that petrolatum will carry, and the medication becomes immediately active on application and penetrates instantly to the source of irritation. Products made with the Vanol base are clean to apply and thirty to fifty per cent more absorbent and effective than those made with the old traditional grease base.

Vanol is unconditionally guaranteed.

Detailed by request.

P. S. You will be surprised at the effectiveness of Ephedrine prepared with the Vanol base.

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Detroit, Michigan**

Society in the medico-legal case which you referred to.

I can very truthfully say that the one bright spot in the whole affair was the splendid feeling shown me and the spirit of coöperation displayed by the members of my local Medical Society and the Michigan State Medical Society.

It is certainly a real satisfaction, at a time like this, to know that you have the Michigan State Medical Society behind you and can count on them for help which was given courteously and efficiently in my case.

Thank you,
Fraternally yours,
(Signed) FRANK L. BULL, M.D.

* * *

May 5, 1939.

L. F. Foster, M.D.,
Sec'y Mich. State Medical Society,
Lansing, Michigan.

Dear Doctor Foster:

The benefits of membership in our County and State Medical Society cannot, in my opinion, be over-emphasized.

As a member of our County and State Medical Society for over thirty years, I know what such membership stands for. Practically all members of our Bay County Society know and call each other by their first name. So it can be imagined the good and helpful feeling which exists. The young medical men are brought into membership and made to see and feel that they are an important unit of a great medical fraternity. We have practically all the medical men in this locality in our Bay County Society.

Our business and scientific meetings twice a month keep us all on our toes and up to the minute in modern medical knowledge.

Membership in the State Society carries with it legal defense in threatened malpractice, and besides the practical defense furnished members so threatened. The moral effect of having all the membership of the great State Society behind you is very comforting.

I urge all medical men not members to immediately contact the Secretary of their County Society and join up. In unity is strength.

Sincerely yours,
(Signed) JOSEPH C. GROSJEAN, M.D.

TERRIBLY DENSE

A school teacher asked her class in what part of the world the most ignorant people were to be found.

A small boy volunteered quickly, "In London, England."

The teacher was amazed and questioned the lad as to where he had obtained such information.

"Well," he replied, "the geography says that's where the population is most dense."—*Halifax Mail*.

THE RIGHT GLASSES

The shortsighted man went into the shop for a pair of cheap spectacles. He tried pair after pair until he got one which suited him perfectly.

He put them on and walked into the street. First thing he saw was a hawker selling grapes from a handcart.

"I think I'll take a bunch of these balloons home to the kids," he said.—*Vancouver Sun*.

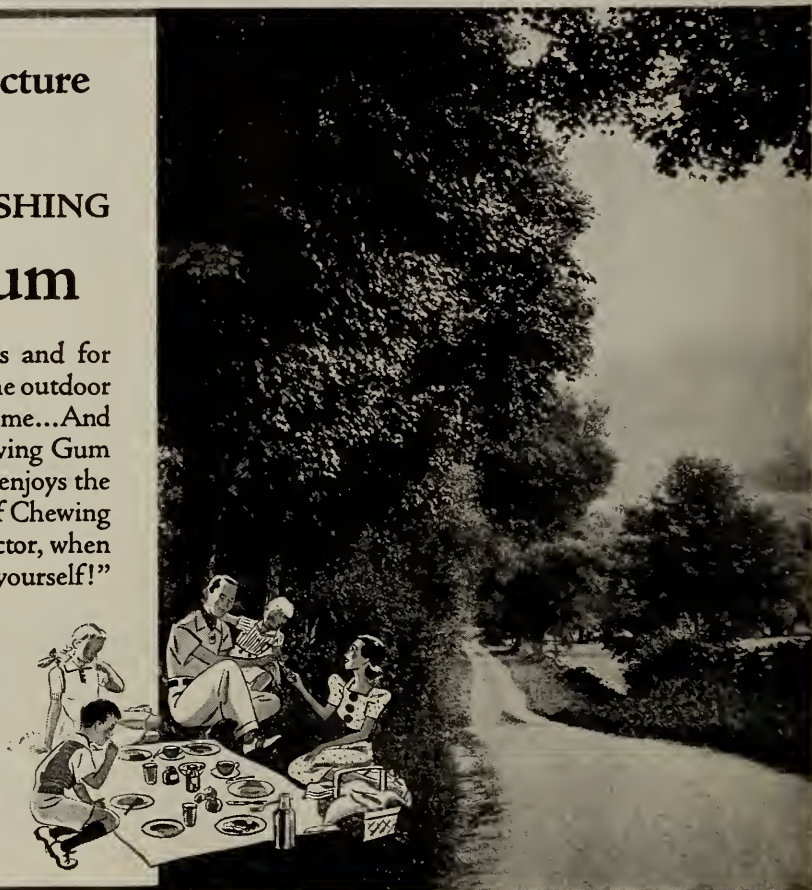
To Complete the Picture Enjoy WHOLESOME, REFRESHING Chewing Gum

Doctors welcome for themselves and for those whose health they guard, the outdoor life and relaxation of the summertime... And the healthful enjoyment of Chewing Gum has its part, too. Most everybody enjoys the delicious taste and refreshment of Chewing Gum. So don't overlook this, doctor, when you say "relax, ease-up and enjoy yourself!"

Four Factors which help lead to Good Teeth are: (1) Proper Food, (2) Personal Care, (3) Seeing Your Doctor and Dentist regularly and (4) Plenty of Chewing Exercise.

The National Association of Chewing Gum Manufacturers, Staten Island, New York

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**A
CONVENIENT OFFICE
TREATMENT FOR
TRICHOMONAS
VAGINITIS**

THIS simple treatment requires but two office visits, a week apart, for insufflations and the nightly insertion of a Silver Picrate suppository for twelve nights.

Complete remission of symptoms and removal of the trichomonad from the vaginal smear usually is effected following the Silver Picrate treatment for trichomonas vaginitis.

Complete information on request



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IN MEMORIAM

Maurice Brodie, M.D.

Dr. Maurice Brodie, Associate Pathologist of Providence Hospital, Detroit, died very suddenly on May 9, while on duty at the hospital. The cause of death was angina pectoris. Dr. Brodie was thirty-six years old, having been born at Liverpool, England, in 1903. His parents, Mr. and Mrs. Samuel Brodie, moved to Ottawa, Ontario, when the boy was eight years old. Dr. Brodie was educated at Ottawa and McGill University, where he received his M.D. degree in 1928. Notwithstanding his youthfulness, Dr. Brodie had already won a wide reputation for his researches in infantile paralysis. In 1934, he was in charge of the infantile paralysis research for the New York City Health Department. Seven months ago, he was married to Miss Edna Finger of New York, who survives him. Dr. Brodie was a member of a number of medical and research organizations. The funeral services were held at the family home in Ottawa, Ontario.

Dr. Conrad Georg

Conrad Georg, M.D., of Ann Arbor, died on April 15, 1939. He had practiced medicine and surgery in Ann Arbor for forty years, and was a former member of the University of Michigan medical faculty. Dr. Georg was born in 1874, the son of a distinguished physician. In 1896, he was graduated from the University of Michigan and in 1899, from

the Medical College of the University. He served for fifteen years as a demonstrator of surgery in the medical school, and later was head of the first x-ray department in the University Hospital. He purchased the first x-ray machine in Ann Arbor in 1904, which machine is now in the University Hospital Museum. Dr. Georg was a member of the Washtenaw County Medical Society, the Tri-State Medical Society, and a charter member of the Thoracic Surgery Society. He is survived by his wife, Katherine Haller Georg; a son, Conrad III; two daughters, Martica and Lucille; a brother, Henry; and four sisters, Mrs. L. Gandy, Mrs. Reuben Schmidt, Miss Louise Georg and Mrs. Joseph Black.

Dr. David A. Jamieson

David A. Jamieson, M.D., of Arcadia, Michigan, died suddenly at Bear Lake, Michigan, May 12, 1939. He was born at Bowmanville, Ontario, December 8, 1865. He was educated in the Bowmanville schools and later taught in the public schools for four years. Coming to the United States, he attended the Detroit College of Medicine, graduating in the class of 1894. That same year he came to Manistee County, locating at Arcadia, and practicing there continually to the time of his death at the age of seventy-four years, five months and five days.

During his forty-five years of practice in Arcadia, Dr. Jamieson attended his flock as only a country doctor of the old school knows how, and he leaves a sorrowing community to mourn his passing. Arcadia has lost a capable physician and Manistee County a good citizen.

Dr. Jamieson was always a kindly, courteous gentleman, with the best interests of his patients and his fellow practitioners at heart. While living the farthest away, he attended the meetings of his

IN MEMORIAM

County Society with great regularity, and at the time of his death was president of the Manistee County Medical Society. He was buried with Masonic rites, and the bearers were members of the County Society.

Horace P. Mellus, M.D.

Dr. Horace P. Mellus, aged fifty-one years, of Brighton, Michigan, died in Detroit, April 18, 1939, of heart disease. He had had several heart attacks during the past two years, in spite of which he enjoyed a rather active life during that period.

Dr. Mellus was born in Detroit, January 28, 1888, graduated from the Central High School and from the Detroit College of Medicine in 1914. After serving an internship at Harper Hospital he came to Brighton, where he remained until his death. During his active practice, he took post-graduate work under Dr. Angus McLean, at the Mayo Clinic, and in Vienna. He was a member of the Livingston County Society, Michigan State Medical Society, and American Medical Association. He owned and operated the only hospital in Brighton from 1921 until the present time, an institution of state-wide acquaintance.

As a contributor to his community he was a great example. He was the founder of the Brighton Rotary Club, and a great admirer of Masonry—he was a member of the Brighton Lodge No. 247, F. and A. M. Livingston Chapter No. 30, R.A.M., and Howell Commandery No. 28 Knights Templar. He was also a member of Moslem Temple Mystic Shrine in Detroit. One of the tragedies in connection with his death was that he died just as he was about to receive the several degrees in De-

troit Consistory of the Scottish Rite. In appreciation of the fine citizenship of Dr. Mellus, the Consistory Class of which he would have been a member voted to take the name "The Horace Peter Mellus Class."

Dr. Mellus is survived by his wife, two sisters, and a brother, who is a dentist in Vicksburg.

Hillis D. Rigterink, M.D.

Dr. Hillis D. Rigterink, of Grand Rapids, died in April, following an operation. He was born at Freeport, twenty-six years ago, and was graduated from the Ottawa Hills High School in 1930. Later, he attended Oberlin College and was graduated from the University of Michigan Medical School in 1937. He was a member of the staff of St. Mary's hospital, also the Kent County Medical Society. Surviving are his wife, Martha; his parents, Dr. and Mrs. John W. Rigterink of Grand Rapids; two sisters, Mrs. C. Supernau of Detroit, and Helen; and his grandparents, Mr. and Mrs. D. Godfrey of Freeport.

INSPECTOR'S OVERSIGHT

The stranger ambled into the farmyard and was challenged by the farmer. With an air of great importance the stranger produced his card and remarked:

"I am a Government inspector and am entitled to inspect your farm."

Half an hour later the farmer saw the inspector being chased by a bull in the field. Leaning over the gate as the inspector dashed toward him, the farmer cried: "Show him your card, mister—show him your card!"—*Edmonton Bulletin*.

E M I N E N T

WORLD LEADERS have, by
their patronage, established The

Drake as an address of distinction. Here
refined luxury, thoughtful service, and
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General News and Announcements

The 100 Per Cent Club of the Michigan State Medical Society

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Ingham
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Lapeer
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Mecosta-Osceola-Lake
Menominee
Midland
Muskegon
Newaygo
O.M.C.O.R.O.
Oceana
Ontonagon
Ottawa
St. Joseph
Shiawassee
Tuscola
Wexford-Kalkaska-Missaukee

Other County Medical Societies are near the 100 per cent mark—being out of the honorary club by just one or two members not having paid 1939 dues. Help your society to be in the 100 Per Cent Club.

M. A. Surrell, M.D., Newberry, has been elected Secretary of the Luce County Medical Society to fill the vacancy left by the death of *C. D. Hart, M.D.*

* * *

Dr. A. E. Voegelin addressed the East Side Medical Society at its meeting on April 27 on the subject of "Circulation Times and Venous Pressure."

* * *

Alexander W. Blain, M.D., of Detroit, was recently appointed a member of the Michigan Conservation Commission by Governor Dickinson. Congratulations!

* * *

L. G. Christian, M.D., Lansing, has been appointed as a member of the Medico-Legal Committee, M.S.M.S., to fill the vacancy left by the death of *Angus McLean, M.D.* of Detroit.

* * *

Dr. Carl V. Weller, professor of pathology at the University of Michigan Medical School, was elected president of the American Association of Pathologists at the annual meeting at Richmond, Virginia, held on April 5 to 7.

* * *

The Michigan Conference on Mental Hygiene in Child Welfare was held in Grand Rapids at the Hotel Pantlind, April 20 to 22, 1939. The conference was the third annual session sponsored by the Michigan Society for Mental Hygiene.

* * *

The seventieth anniversary of the medical department of Wayne University will be observed on Wednesday, June 14, in a program for the annual

alumni clinic at the Receiving Hospital, Detroit. A number of class reunions will be observed also on this date.

* * *

Ralph H. Pino, M.D., and *Warren B. Cooksey, M.D.*, were installed as President and Secretary respectively of the Wayne County Medical Society at its annual meeting of May 15, 1939. *Allan W. McDonald, M.D.*, was made President-Elect.

* * *

The National Commission on Graduate Medical Education in its three-year study singles out Michigan from 24 states maintaining programs of continuing education in Medicine, as the only one in which the ideal in principle and practice is being approximated.

* * *

A residency in tuberculosis at the American Legion Hospital at Battle Creek, Michigan, will be open beginning July 1, 1939. Anyone interested in this unusual opportunity to secure outstanding training and experience in the treatment of tuberculosis should write *W. L. Howard, M.D.*, Medical Director, American Legion Hospital, Battle Creek, Michigan.

* * *

The American Congress on Obstetrics and Gynecology sponsored by the American Committee on Maternal Welfare, Inc., will be held in Cleveland, Ohio, September 11 to 15, 1939. The program is designed to be of interest and help to members of all branches of the practice of medicine. All members of the medical profession are cordially invited to attend the Congress in Cleveland.

* * *

The following articles appearing in *The Journal of the American Medical Association* were contributed by Michigan physicians: "Chondro-Epiphysitis" by *Robert L. Schaefer, M.D.*, *Fred L. Strickroot, M.D.*, and *Frank H. Purcell, M.D.*, Detroit, issue of May 13, 1939; "Intersexuality" by *Robert C. Moehlig, M.D.*, and *Norman M. Allen, M.D.*, of Detroit, issue of May 13, 1939.

* * *

The William J. Mayo Annual Lecture at the University of Michigan was delivered by *Dr. Harold I. Lillie*, on April 28. His subject was "The Correlation of the Special Practice of Otolaryngology with General Practice of Medicine." *Dr. Lillie*, a graduate of the University of Michigan Medical School in 1912, is professor of Otolaryngology in the graduate school of the University of Minnesota.

* * *

The successful candidates for office voted on by the Membership Committee of the Wayne County Medical Society are: President-elect, *Allan McDonald, M.D.*; secretary, *Warren B. Cooksey, M.D.*; trustee, *Henry R. Carstens, M.D.* Medical Section—Chairman, *R. L. Novy, M.D.*; secretary, *R. C. Connelly, M.D.* Surgical Section—Chairman, *W. D. Barrett, M. D.*; secretary, *E. G. Krieg, M.D.*

* * *

The 18th Annual Scientific and Clinical Session of the American Congress of Physical Therapy will be held September 5 to 8, 1939, at Hotel Pennsylvania, New York City. Preceding these sessions the Congress will conduct an intensive instruction seminar in physical therapy for physicians and technicians—August 30, 31, September 1 and 2. For further information address the American Congress of Physical Therapy, 30 No. Michigan Avenue, Chicago.

GENERAL NEWS AND ANNOUNCEMENTS

Now is the time to write for your hotel reservation in Grand Rapids, if you are planning to attend the 1939 Grand Rapids Convention of the Michigan State Medical Society next September 19 to 22, inclusive. The Hotel Pantlind, which is connected by underground passage with the Civic Auditorium, has 750 rooms. Single rooms are available from \$2.50 to \$5.00; double rooms from \$4.50 to \$8.00.

* * *

The American Public Health Association has recently adopted five Reports dealing with Educational Qualifications of Public Health Statisticians, School Health Educators, Public Health Engineers, Sanitarians, and Sub-Professional Field Personnel in Sanitation. If you are interested in any of these reports, you may receive a free copy by writing the Book Service, American Public Health Association, 50 West 50th Street, New York City.

* * *

The Wayne County Medical Society will sponsor in the fall of 1939 a postgraduate training for general practitioners. The postgraduate teaching program next year will be carried on with the aid and coöperation of Wayne University College of Medicine and local hospital. The tentative schedule has been arranged at Receiving Hospital under the direction of Gordon Myers, M.D., Professor of Medicine, Wayne University College of Medicine.

* * *

Examinations for certification by the American Board of Internal Medicine will be held in various sections of the United States on the third Monday in October and the third Monday in February. Formal application must be received by the Secretary before August 20, 1939, for the October 16 examination; before January 1, 1940, for the February, 1940, examination. Application forms may be obtained

from Wm. S. Middleton, M.D., Secretary-Treasurer, 1301 University Avenue, Madison, Wisconsin.

* * *

At a meeting of the Detroit Obstetrical and Gynecological Society of May 2, 1939, the constitution was amended, allowing this society to change its name to the "Michigan Society of Obstetricians and Gynecologists." This will enable the Society to widen its scope and its influence because of a statewide membership. The officers elected were as follows: Harry M. Nelson, M.D., Detroit, President; Russell W. Alles, M.D., Detroit, Vice President; Howard C. Walser, M.D., Detroit, Secretary; Milton A. Darling, M.D., Detroit, Treasurer.

* * *

Crippled and Afflicted Child Commitments for April, 1939, were as follows:

Crippled Child: Total cases, 863, of which 241 were sent to University Hospital and 622 to miscellaneous hospitals. Of the above, Wayne County sent 6 to University Hospital and 48 to miscellaneous hospitals for a total of 54 cases.

Afflicted Child: Total cases, 1,445, of which 203 were sent to University Hospital and 1,242 to miscellaneous hospitals. Of the above, Wayne County sent 33 to University Hospital and 339 to miscellaneous hospitals, for a total of 372.

* * *

On the afternoon of May 8, ground was broken for the new three hundred thousand dollar unit of the Detroit Tuberculosis Sanitarium, on the grounds of the present sanitarium at Tuxedo and Twelfth Streets, Detroit. The new institution will be named after Dr. Burt R. Shurly, who has been the leading spirit in fostering the Detroit Tuberculosis Sanitarium for thirty years. The addition will contain ninety beds besides operating and x-ray rooms and laboratory space for medical research. The sanita-

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+

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James C. Droste, M. D.

Lynn A. Ferguson, M. D.

+

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rium is financed by the annual sale of Tuberculosis Christmas Seals. Eighty thousands dollars was realized from the sale of Christmas seals in 1938.

* * *

Notice to secretaries of county medical societies: The Executive Committee of The Council requests all county medical societies to certify the names of members for whom Honorary or Retired or Emeritus or Associate Membership in the State Society will be sought next September, to the Executive Office, 2020 Olds Tower, Lansing, thirty days in advance of the annual meeting. The name of any physician, to be recommended by his county medical society to the House of Delegates, should be certified to the Lansing Office not later than August 18, 1939, in order that the records may be checked.

* * *

The Michigan Legislature approved the bill amending the prenuptial physical examination law, which makes it possible for an individual with a Wassermann-Fast blood test to obtain a license to marry. The law now provides for the appeal of these cases to a board. The law as it is now written represents a great amount of work and thought and it is hoped will eliminate the injustices of the original act. The full text of the law will appear in a subsequent issue of THE JOURNAL.

The Legislature also approved a bill which will require serological blood test to be made on all women who are pregnant. This law will also be published in THE JOURNAL.

* * *

Samuel B. Gross Prize of the Philadelphia Academy of Surgery of \$1,500 is awarded every five years to the writer of the best original essay, not exceeding 150 printed pages, octavo, in length, illustrative of some subject in Surgical Pathology or Surgical Practice founded upon original investigations, the candidates for the prize to be American citizens. Essays to be acceptable must be received by the Trustees of the Samuel B. Gross Prize of the Philadelphia Academy of Surgery, c/o The College of Physicians, 19 South Second Street, Philadelphia, on or before January 1, 1940. For further information write to the above address.

* * *

Louis N. Katz, M.D., Director of Cardiovascular Research at Michael Reese Hospital, offers a full-time intensive course in electro-cardiography for two weeks, August 21 to September 2, 1939. The course is designed for the general practitioner, and will consist of practice on several electro-cardiograph machines and discussion of the principles of their construction and use. There will be sessions on interpretation of electro-cardiograms illustrated by lantern slides and practice on the students with unknown records. If you are interested, further information may be obtained by writing Michael Reese Hospital, Cardiovascular Department, 2839 Ellis Avenue, Chicago, Ill.

* * *

The annual spring clinic of the Providence Hospital Interne Alumni Association was held on May 10 and 11 in Martha Higgins Auditorium. "Pituitary Disease" was discussed by Mark McQuiggan, M.D., Russell Costello, M.D., and L. J. Bailey, M.D. "The Determinant of Adequate Dosage in the Use of Short Wave Diathermy" was presented on May 11 by Milton D. Schmitt, M.D., of Chicago; and John S. Davis, Jr., M.D., of New York City, presented the subject of "Rheumatism—Diagnosis and Treatment." "The Use of X-ray in the Prevention and Treatment of Certain Infections with a Mobile Unit" was discussed by James F. Kelly, M.D., of Omaha, Nebraska. Golf, followed by dinner at Grosse Ile Golf and Country Club, was enjoyed in the afternoon.

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ANNOUNCES CONTINUOUS COURSES

MEDICINE—Two Weeks' Course, Gastroenterology, June 19, September 25. Two Weeks' Personal Course, Electrocardiography, August 7. Special Courses in August. Two Weeks' Course, October 9.

SURGERY—General Courses: One, Two, Three and Six Months; Two Weeks' Intensive Course in Surgical Technique with practice on living tissue; Clinical Courses; Special Courses. Courses start every two weeks.

GYNECOLOGY—Two Weeks' Personal Course, June 19; Four Weeks' Personal Course, August 28. Two Weeks' Course, October 9.

OBSTETRICS—Two Weeks' Intensive Course, June 19, October 23. Informal Course every week.

FRACTURES AND TRAUMATIC SURGERY—Ten-day Formal Course, June 19, September 25. Informal Course every week.

OTOLARYNGOLOGY—Two Weeks' Intensive Course starting September 11. Informal Course every week.

OPHTHALMOLOGY—Two Weeks' Intensive Course starting September 25. Informal Course every week.

CYSTOSCOPY—Ten-day Practical Course, rotary every weeks. Urology Courses every two weeks.

ROENTGENOLOGY—Special Courses X-ray Interpretation, Fluoroscopy, Deep X-ray Therapy starting every week.

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The Twelfth Graduate Fortnight of the New York Academy of Medicine will be held from October 23 to November 3, 1939. The subject of this year's Fortnight is the Endocrine Glands and Their Disorders. The purpose of the Fortnight is to make a complete study and authoritative presentation of a subject of outstanding importance in the practice of medicine and surgery. The New York Academy of Medicine provides this program for the fundamental purpose of medical education. Consequently, all members of the medical profession are eligible for registration. A complete program and registration blank may be secured by addressing Mahlon Ashford, M.D., New York Academy of Medicine, 2 East 103rd Street, New York City.

* * *

The University of Michigan Hospital Bulletin, announcing its cooperation with the Michigan Society of Group Hospitalization, offers the following interesting bit of news on the Group Hospital Insurance Movement elsewhere: "It is interesting to note that group budgeting for hospital care was started at Baylor University, at Dallas, Texas, in 1930. The American Hospital Association has promoted this type of cooperation, and on January 1, 1939, more than 800 outstanding hospitals in 27 states were participating, and there were 2,874,055 subscribers. Financially, every nonprofit hospital service plan has been successful and has accumulated reserve funds. Cleveland, with 106,000 subscribers, has built up a reserve fund of \$360,000 in four years, and in New York City the reserve has mounted to over \$2,000,000."

* * *

Governor Dickinson of Michigan has appointed a new State Advisory Council of Health which includes the following names: Dr. Carleton Dean, of Charlevoix; Dr. A. D. Aldrich, Houghton; Dr. Roy C. Perkins, Bay City; Dr. Henry F. Vaughan, of the Detroit Public Health Department, and Dr. John Lavan, Grand Rapids.

The Governor also appointed six new members to the State Board of Registration in Medicine and reappointed four others. Those newly appointed were: Dr. Elmer W. Schnoor, Grand Rapids; Dr. Francis B. Jarzembowski, Detroit; Dr. W. C. Ellet, Benton Harbor; Dr. Luther Peck, Plymouth; Dr. Horace L. French, Lansing, and Dr. G. M. Byington, Detroit. Those reappointed were Dr. J. Earl McIntyre, Lansing; Dr. J. D. Brook, Grandville; Dr. William E. Tew, Bessemer, and Dr. Claude R. Keyport, Grayling.

* * *

The annual meeting of the Wayne County Medical Society was held on Monday, May 15. Dr. Ralph Pino, who succeeds Dr. Henry R. Carstens as president, was inducted into office. The program consisted of a memorial meeting to the late Dr. George E. McKean. The event was marked by the unveiling of a portrait of Dr. McKean painted by Roy Gamble. The dedication address was made by Dr. Alexander W. Blain, chairman of the Board of Trustees of the Wayne County Medical Society. Dr. McKean was president of the society in 1919-1920, following which term of office he served as a member of the Board of Trustees for thirteen years. Dr. Raymond B. Allen, dean of the Wayne University College of Medicine, delivered the principal address of the meeting on the opportunities for continuous medical education in Wayne County.

Henry R. Carstens, M.D., retiring President of WCMS, was elected to the Board of Trustees for a term of five years. R. L. Novy, M.D., and R. C. Connelly, M.D., were elected Chairman and Secretary respectively of the Medical Section; W. D. Barrett, M.D., and E. G. Krieg, M.D., were elected Chairman and Secretary respectively of the Surgical Section.

Physicians who have addressed county medical societies and lay groups during the past month include: C. E. Simpson, M.D., Detroit, who spoke to the Men's Club of the M. E. Church in Detroit on the subject of "Socialized Medicine" on April 10.

Parker Heath, M.D., Detroit, discussed "Common Fundoscopic Findings of Interest to the General Practitioner" at the meeting of the Ingham County Medical Society on April 18.

J. Warrick Thomas, M.D., Cleveland, discussed "Allergy in General Practice" before the meeting of the Jackson County Medical Society on April 19.

N. L. Parker, M.D., Chicago, addressed the Berrien County Medical Society on April 19, on the subject of "Surgery of the Gastro-intestinal Tract."

Carl V. Weller, M.D., Ann Arbor, addressed the Muskegon County Medical Society on April 21, on the subject of "New Concepts of Pathology."

John A. McGregor, M.D., of London, Ontario, discussed "Problems in Internal Medicine" at the meeting of the St. Clair County Medical Society on April 25.

C. E. Merritt, M.D., Bay City, presented "A Modern Philosophy of Public Health" before the Bay County Medical Society on April 26. Dr. Merritt gave a practical demonstration of modern technic for vaccination, immunizations, and tuberculin tests.

Floyd T. Romberger, M.D., of Lafayette, Indiana, presented the subject of "Anesthesia Up to Now" at a meeting of the Kent County Medical Society on April 26.

Robert S. Breakey, M.D., of Lansing, discussed "Syphilis Control" at the meeting of the Hillsdale County Medical Society on April 27.

Harry J. Isaacs, M.D., Chicago, addressed the Calhoun County Medical Society on May 2, on the subject "Diagnosis and Treatment of Right and Left Heart Failure."

Wm. D. Robinson, M.D., Ann Arbor, Department of Internal Medicine, presented the subject "Indications for Therapeutic Use of Vitamin B" at the meeting of the Washtenaw County Medical Society on May 9.

Pearl Kendrick, M.D., of Grand Rapids, addressed the Ionia-Montcalm Medical Society on May 9, on the subject of "Recent Work with Whooping Cough Vaccine."

R. J. Needles, M.D., of Detroit, discussed before the St. Clair County Medical Society on May 9, the subject "Sulfapyridine in the Treatment of Pneumonia."

Mr. Leo Ford, Attorney from Chicago, Ill., discussed "Malpractice and its Defense" at the joint meeting of the Bay County Dental Society-Bay County Medical Society on May 10.

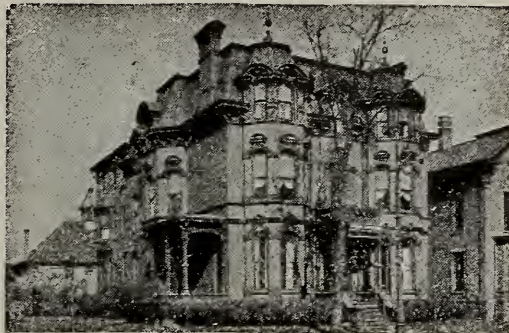
Frank Belsley, M.D., of Ann Arbor, presented the subject "Toxemias of Pregnancy" at the meeting of the Berrien-Cass county medical societies on May 17.

The following physicians presented papers at the recent meeting of the American College of Physicians in New Orleans: H. A. Towsley, M.D., Ann Arbor, presented "Colored Motion Pictures on the Acute Exanthems"; Fred J. Hodges, M.D., of Ann Arbor, presented "Roentgen Procedures Useful in Cardiac Diagnosis"; Frank H. Bethell, M.D., of Ann Arbor, discussed "The Influence of Iron and Diet on the Blood in Pregnancy."

Alexander M. Campbell, M.D., Maternal Health Consultant, Bureau of Maternal Health and Child Health, addressed the Northern Michigan Medical Society in Petosky on May 10, on "The Conduct of Labor."

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Escanaba, Michigan, August 23-24, 1939

Tentative Program

Wednesday, August 23, 1939

12:00 Noon

Luncheon in honor of M.S.M.S. Officers and Councilors.

Afternoon Session—1:30 P. M.

Henry F. Helmholz, M.D., Rochester, Minn.—“Urinary Tract Infections in Children.”

L. G. Christian, M.D., Lansing, Mich.—“Serum Treatment of Pneumonia.”

Francis D. Murphy, M.D., Milwaukee, Wisc.—“Problems in Clinical Medicine.”

W. E. Blodgett, M.D., Detroit, Mich.—“First Aid Treatment of Fractures—Transportation.”

Evening—7:00 P. M.

W. W. Bauer, M.D., Chicago, Ill.—(Banquet Speaker).

Thursday, August 24, 1939

Morning Session—9:00 A. M.

Business Meeting. Election of Officers.

Henry R. Carstens, M.D., Detroit, Mich.—“Peripheral Vascular Disease.”

Horton Casparis, M.D., Nashville, Tenn.—“Tuberculosis.”

John T. Murphy M.D., Toledo, Ohio—(Subject to be sent in).

CREDIT IS DUE

Registration at M.S.M.S. Convention

Wednesday, September 21, 1938

Drs. Vernon C. Abbott, Pontiac; S. L. Adelson, Detroit; Leopold Adler, Detroit; E. G. Aldrich, Detroit; W. H. Alexander, Iron Mountain; A. D. Allen, Bay City; Russell W. Alles, Detroit; Herbert C. Allison, Grosse Pointe; Norman Amos, Battle Creek; T. G. Amos, Detroit; P. D. Anneberg, Detroit; George E. R. Anthony, Flint; Meyer S. Ascher, Detroit; Z. R. AschenBrenner, Royal Oak; L. B. Ashley, Detroit.

Drs. Morris E. Bachman, Detroit; F. A. Baker, Pontiac; Geo. M. Baker, Parma; F. W. Bald, Flint; Charles S. Ballard, Detroit; Albert S. Barr, Ann Arbor; C. D. Barrett, Mason; C. M. Baskerville, Mt. Pleasant; Watson Beach, Detroit; Colin Beaton, Detroit; Eva F. Beck, Eloise; H. F. Becker, Battle Creek; M. B. Beckett, Allegan; Carl B. Beeman, Grand Rapids; Howell L. Begle, Detroit; G. W. Behan, Galesburg; Wm. C. Behen, Lansing; Zina B. Bennett, Detroit; Davis A. Benson, Detroit; John C. Benson, Flint; Bernard Bernbaum, Detroit; Martin Bernfield, Detroit; Samuel S. Bernstein, Detroit; Harry G. Bevington, Detroit; Frank B. Bicknell, Detroit; D. L. Bishop, Flint; James B. Blashill, Detroit; Abraham Bloch, Detroit; William E. Blodgett, Detroit; Leon M. Bogart, Flint; W. P. Boles, Flint; A. T. Bonathan, Flint; W. P. Bope, Decatur; David A. Boyd, Ann Arbor; Wm. Brace, Ann Arbor; C. W. Brainerd, Battle Creek; B. Brand, Detroit; James R. Breakey, Ypsilanti; Robert S. Breakey, Lansing; O. A. Brines, Detroit; Harvey Broderson, River Rouge; William Bromme, Detroit; Eugene S. Browning, Grand Rapids; Jacob Bruggema, Evart; Howard O. Brush, Port Huron; Charles M. Burgess, Detroit; L. V. Burkett, Flint; Max Burnell, Flint; Perry P. Burnstine, Detroit; H. S. Burstein, Detroit; I. M. Burstein, Detroit; M. M. Burstein, Detroit; Milton G. Butler, Saginaw.

Drs. Carl D. Camp, Ann Arbor; James E. Caraway, Detroit; L. H. Carleton, Detroit; E. H. Carroll, Detroit; A. L. Chapman, Detroit; N. J. Carney, Durand; C. H. Carpenter, Detroit; L. F. Carter, Detroit; Roscoe W. Cavell, Eloise; J. H. Chalut, Detroit; Henry G. Chall, Detroit; Arthur N. Chatel, Detroit; George E. Chittenden, Detroit; G. C. Chostner, Detroit; J. W. Christie, Pontiac; Laurence Chrouch, Detroit; A. S. Church, Eloise; Starr K. Church, Marshall; Emilie Arnold Clarke, Detroit; Glenn Clements, Ann Arbor; T. Percy Clifford, Detroit; John H. Cobane, Detroit; Leon F. Cobb, Pontiac; Don A. Cohoe, Detroit; Margarete W. Coleman, Detroit; Frederick A. Collier, Ann Arbor; Harrison S. Collisi, Grand Rapids; Raymond G. Colyer, De-

troit; Jerome W. Conn, Ann Arbor; John Joseph Connors, Detroit; J. E. Cooper, Battle Creek; H. E. Cope, Detroit; E. R. Conrad, Detroit; E. H. Corley, Jackson; Robert L. Cowen, Detroit; F. Cox, Jackson; A. W. Coxon, Detroit; B. A. Credille, Flint; R. H. Criswell, Bay City; James E. Croushore, Detroit; Guy D. L. Culver, Stockbridge; F. S. Curry, Detroit;

Drs. Harold J. Damstra, Allegan; J. C. Danforth, Detroit; Alfred Dean, Grand Rapids; C. R. Defever, Detroit; R. H. Denham, Grand Rapids; J. Lewis Dill, Detroit; Bruce H. Douglas, Detroit; Harvey E. Dowling, Detroit; Ira G. Downer, Detroit; Charles R. Doyle, Lansing; Harold Drinkaus, Detroit; Edmund J. Dudzinski, New Baltimore; Edward A. Duffy, Detroit; F. Mansel Dunn, Lansing; Paul J. Dwaihy, Detroit.

Drs. F. J. Eakins, Detroit; C. T. Ekelund, Pontiac; Cecil W. Ely, Saginaw; Nina M. Ely, Bay City; S. G. Epstein, Detroit; Milton Hyland Erickson, Eloise; Wm. A. Evans, Detroit; R. T. Ewing, Monroe; Esther Eymers, Saginaw.

Drs. S. E. Far, Quincy; S. S. Farman, Detroit; L. A. Farnham, Pontiac; T. Finkelstein, Flint; Ralph L. Fitts, Grand Rapids; Norman Flaherty, River Rouge; S. T. Flynn, Flint; E. L. Foley, Alpena; Earl W. Foust, Hazel Park; William L. Foust, Grass Lake; B. L. Frankliu, Remus; H. F. Fraser, Detroit; Robert C. Fraser, Port Huron; Thelma Freeman, Detroit; J. Courtney Fremont, Detroit; Hugo A. Freund, Detroit; George E. Frothingham, Detroit; A. C. Furstenberg, Ann Arbor.

Drs. D. B. Galerneau, Van Dyke; E. C. Galsterer, Saginaw; W. G. Gamble, Jr., Bay City; Cyrus B. Gardner, Lansing; Louis J. Gariepy, Detroit; C. R. Gatley, Pontiac; Harold H. Gay, Midland; S. M. Gelenger, Flint; William J. Gelhaus, Monroe; C. George, Ann Arbor; Frank B. Gerls, Pontiac; F. D. German, Pontiac; James L. Gillard, Muskegon; O. H. Gillett, Grand Rapids; Charles Gitlin, Detroit; Walter S. Glazer, Detroit; John E. Gleason, Detroit; J. L. Gleses, Detroit; George R. Goering, Flint; Gerald Orton Grain, Detroit; Lee O. Grant, Grand Rapids; F. L. Graubner, Monroe; M. Z. Greenberg, Detroit; Chas. A. Groomes, Bay City; J. W. Gunn, Watervliet.

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Acknowledgement of all books received will be made in this column and this will be deemed by us a full compensation to those sending them. A selection will be made for review, as expedient.

PRINCIPLES OF HEMATOLOGY. With 100 Illustrative Cases, and 155 Illustrations Including 168 Original Photomicrographs and 95 Original Charts and Drawings. By Russell L. Haden, M.A., M.D., Chief of the Medical Division of the Cleveland Clinic, Cleveland, Ohio; Formerly Professor of Experimental Medicine in the University of Kansas School of Medicine, Kansas City, Kansas. Philadelphia: Lea & Febiger, 1939.

Probably no other medical subject has advanced more rapidly within such a short time as hematology. In fields of rapidly accumulating knowledge, new books or frequent revisions are a necessity. Dr. Haden's book presents up-to-date knowledge on the blood, together with clinical interpretations. The work is fully illustrated. It is of convenient size, 350 pages, and it contains no more and no less than should comprise a working knowledge for the medical practitioner.

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YOU CAN SLEEP WELL, The A B C's of Restful Sleep for the Average Person. By Edmund Jacobson, M.D. New York and London: Whittlesey House, McGraw-Hill Book Company, Inc., 1938. Price, \$2.00.

Dr. Jacobson is widely and favorably known for his writings on the subject of rest, relaxation and sleep. The present work is for the layman. It is written in part in a somewhat facetious vein; even when the writer is serious, he is always interesting. This book can be recommended to lay readers and the medical reader will also find it entertaining as well as instructive.

* * *

THE TREATMENT OF FRACTURES: By Charles Locke Scudder, A.B., Ph.B., M.D., F.A.C.S., Consulting Surgeon to the Massachusetts General Hospital; Formerly Assistant Professor of Surgery at the Harvard Medical School; Fellow American Surgical Association; Member of the American Society of Clinical Surgery. Eleventh Edition, Revised. 1,209 pages with 1,717 illustrations. Cloth \$12.00 net. Philadelphia and London: W. B. Saunders Company, 1938.

In contemplating this edition, the author has realized that many methods have become obsolete and that new methods of diagnosis and treatment have been proven of worth. He has, therefore, completely rewritten this edition, adding many new illustrations which add materially to the value of the book. Realizing, too, the existence of special problems in the treatment of fractures, he has availed himself of the services of men who are especially qualified to discuss the diagnosis and treatment of special fractures.

Attention is given to the subject of the initial care and transportation of fracture cases. The use of the fluoroscope in the reduction of fractures, the subject of extension and counterextension and skeletal traction, together with the employment of plaster-of-Paris as a method of fixation are fully discussed. The author wishes to impress the student and practitioner that fracture is not simply a bone injury, but that, in addition, the surrounding soft parts partake in the damage as well. He, therefore, gives a thorough discussion of peripheral nerve injury, Volkmann ischemic contracture, myositis ossificans, together with their prophylaxis and treatment.

In the discussion of specific fractures, each member is taken up in the usual manner. He has not attempted to describe every method in use, but those methods that have been employed by him and found useful and applicable are described in detail. As throughout the whole work, many excellent half-tones, drawings and reproductions of x-ray films illustrate the methods used.

In discussing the operative treatment of fractures, the author expresses the belief that to be qualified to employ the open method of treatment, the surgeon should possess special qualifications of skill in surgical technic. He describes the principles involved in the open operation versus the non-operative treatment and gives special details that should be given consideration in order to secure successful results. His discussion of the method of approach in the operative treatment in various localities, his description of methods of reduction and of instruments used in open reduction operations and his description of methods of fixation, by the

use of screws, bone splints and pins, et cetera, giving the advantages and disadvantages of each, is complete in its detail.

For one who wishes to know the latest methods of treating fractures and for one who wishes a thorough understanding of the principles involved in their treatment, this work will fulfill those desires.

UROLOGY. By Daniel N. Eisendrath, M.D., Consulting Urologist to the American Hospital, Paris, France; formerly attending urologist, Michael Reese and Cook County Hospitals; Assistant Professor of Surgery (Genito-Urinary) Rush Medical College of the University of Chicago and Harry C. Rolnick, M.D. Attending Urologist, Michael Reese, Mt. Sinai, and Cook County Hospitals, Chicago; formerly Clinical Professor of Urology, Loyola University Medical School. 750 black and white illustrations and 12 in color. Fourth edition, entirely revised and reset. Philadelphia—Montreal—London: J. B. Lippincott Company.

In an effort to simplify this work for teaching purposes and, because of improvements in diagnostic and therapeutic methods, the authors have made a complete revision of the previous edition. In the chapters on embryology, anatomy and physiology of the urogenital tract the treatment is complete and many illustrations are given to give the urologist an understanding of the facts that are fundamental to the practice of this specialty. Laboratory methods of examination and the use of the various functional tests are given, together with the technic of their performance and their interpretation. Urethroscopy, cystoscopy and urethral catheterization and the various types of instruments used in such examinations are described in detail. Many illustrations are given to show the procedures and colored plates illustrate the findings when these examinations are made. In the chapter on radiography of the genito-urinary system the authors discuss the value of the various methods of radiographic study, giving their interpretation of the advantages and disadvantages of each method. Radiographic findings are pictured and their interpretation is discussed. With these chapters at his disposal, the urologist will find assistance in the interpretation of his problems.

In the discussion of venereal diseases, particular attention is given to the discussion of gonorrhea and its complications. This disease, as it occurs in female, is amply covered. In the consideration of the affections of the urogenital tract, the authors have taken each organ separately and given a full and complete discussion of the pathological conditions found in that organ, including the anomalies, injuries, neoplasms and various types of infection. The treatment of the subject of kidney affections is particularly complete. Cryptorchidism, together with



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the hormones treatment is handled with conservation. Sterility in the male is given the consideration that it deserves and sex neuroses are discussed in a manner that is enlightening. Urology in the female and in children is given more consideration than is found in many texts. Several chapters are given to operative technic and many procedures are illustrated with drawings.

PATIENTS' ACCOUNTS

(Continued from page 518)

mentioned frequently in these columns before, we feel that to do justice to this subject we should emphasize the importance of proper collection procedures during the accumulation of the estate. A current account is worth much more than one long past due. Similarly money in the bank is worth considerably more than a patient's promise to pay (or failure to promise to pay). We have definitely proven not only to ourselves, but to a great many doctors now in practice that the best collection procedures not only bring in the maximum income, but also help to build the most goodwill. The minimum of doubtful accounts on the books, simultaneously with the maximum of cash in the bank greatly assists in the accumulation of the estate and at the same time minimizes the problems of an executor or administrator.

Your Chest Should Be Flat, says S. A. Weisman, in a little book written after examining many thousand school children and college students and determining the thoracic index—the ratio of the width to the depth of the chest. Contrary to the belief of the majority of physicians it was found that the round deep chest with a higher thoracic index is associated more frequently with tuberculosis than the wide flat chest. Correlating the thoracic index to age, sex, weight, height, vital capacity, racial stock and environment, he concludes that the round deep chest is associated with a retarded physical development, which occurs more frequently in an unsuitable environment than a more favorable one. Children with rounded shoulders and deeper chests should be watched carefully if tuberculosis is to be prevented. Weisman, S. A., Lippincott, 1938.

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Among Our Contributors

Dr. Hira E. Branch is a graduate of the University of Michigan Medical School, class of 1932. He received orthopedic training at Harper Hospital and Children's Hospital, Detroit, and also held a Fellowship in Orthopedics at the Ruptured and Crippled Hospital, New York City. Dr. Branch is an instructor in Orthopedic Surgery at the Wayne University Medical School, and is a Diplomate of the American Board of Orthopedic Surgery.

* * *

Dr. Milton G. Butler is a graduate of the Medical College of the University of Michigan, and pursued postgraduate work in dermatology at the University of Buffalo. He taught dermatology and served as a resident under Dr. Earle Osborne at the University of Buffalo College of Medicine. Dr. Butler has been in private practice at Saginaw, Michigan, since 1932, and his practice is limited to dermatology. Dr. Butler is a member of the American Academy of Dermatology and Syphilology.

* * *

Dr. Maurice Kadin is a graduate of the University of Chicago, and in 1937 he graduated from Rush Medical College. He was resident physician at the Cook County Hospital, and in 1938 entered general practice at Calumet, Michigan, where he is on the staff of the Calumet Memorial Hospital.

* * *

Dr. Samuel J. Levin graduated from the University of Toronto in 1923. He was Interne and Resident in the Department of Pediatrics and Allergy at the University Hospital, Ann Arbor, 1923-1925, and Resident Mount Sinai Hospital, New York 1925-1926. He was instructor in the Department of Pediatrics and Allergy, University of Michigan, 1926-1927, and Instructor in Pediatrics, Wayne University College of Medicine, since 1927. He is in charge of the Allergy Clinic, Children's Hospital of Michigan, Detroit. Dr. Levin limits his practice to Allergy.

* * *

Dr. Walter J. Maddock of Ann Arbor is a graduate of the University of Michigan Medical School, 1927. He is now Associate Professor of Surgery at the University of Michigan.

* * *

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* * *

Dr. C. L. R. Pearman was graduated from the University of Michigan Literary College in 1922, and Wayne University College of Medicine in 1927. He was Resident Psychiatrist at the Eloise Hospital from 1928 to 1937, also Lecturer in Psychiatry and Clinical Demonstrator. At the present time, Dr. Pearman is psychiatrist at the Wayne County Clinic for Child Study.

* * *

Dr. John George Slevin was graduated from the University of Detroit in 1925, and received his M.D. degree from St. Louis University in 1929. At present, he is assistant attending surgeon at Grace Hospital and attending surgeon at Mt. Carmel Mercy Hospital, Detroit.

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Beaumont Foundation Lecture

THE SPECIFIC THERAPY OF THE PNEUMONIAS*

I. The Choice of a Remedy

JESSE G. M. BULLOWA, M.D.

Clinical Professor of Medicine, New York University College of Medicine
NEW YORK CITY

William Beaumont was a practitioner who, in the course of his daily duties, observed, recorded and drew inferences from what he saw in an accidentally produced gastric pouch. These observations are among the accepted fundamental bases for current gastroenterological practice. As practitioners, all of us have the opportunity to observe carefully, record accurately and reason exactly. Because at the present time our approach to the therapy of the pneumonias has been changed from nihilistic or laissez faire to aggressive therapeutic attack with new remedies, it seems a fitting tribute to the memory of William Beaumont to present the bases for a choice.

As a result of advances in our knowledge of bacteriology and immunology, it has come to be recognized that infectious diseases are interactions between host and invading organisms. There can be no safer method of modifying the dynamic equilibrium which exists between host and pathogen than one founded on a study of the pathogenesis of the disease we seek to cure.

Though there may be differences in the invaded hosts and in the attacking organisms, we shall discuss these variations after considering the usual response. Individual factors often determine the outcome and in judging results of therapeutic effort they are important.

My remarks refer to the pneumococci because of their importance as the usual excitants of pneumonia. When pneumococ-

ci invade the lungs there is a local inflammation manifested by dilated vessels, diapedesis of leukocytes and multiplication of the fixed tissue cells, ably described, among others, by Robertson. In addition, in the serum of the patient, antibodies develop which combine with the soluble carbohydrate produced by the pneumococci and, swelling the capsules of the pneumococcus, cause the pneumococci to be phagocyted by phage cells and leukocytes. This is, in part, the usual mechanism of healing in the pneumonias.

Early observations of Klein and Winternitz indicate the importance of leukocytes in recovery. Steinberg observed that phagocytosis occurred seven minutes after the injection of antipneumococcic serum into the peritonea of dogs suffering from induced pneumococcic peritonitis although previously there was none. Observations of Pickrell are also of moment. They tend to establish the importance of both the local and the general response. He observed that

*From the Littauer Pneumonia Research Fund of New York University and the Medical Service of Harlem Hospital, New York, N. Y. These studies received financial support, in part, from the Metropolitan Life Insurance Company from Bernard M. Baruch, Bernard M. Baruch, Jr., Miss Belle N. Baruch and Mrs. H. Robert Samstag. Given before the Wayne County Medical Society, February 20, 1939.

leukocytes failed to migrate during alcoholic intoxication even though their phagocytic power was unaffected, and he and other workers observed not only that the local inflammatory response failed to appear in intoxicated animals, but that the amount of blood invasion depended, in part, upon this local response. When animals were stupified with alcohol there was no leukocytic exudate at the site of the injection of the organisms, even though the animals had previously been actively immunized. It is important, however, to note that the blood invasion was delayed in those immunized. The blood of nonintoxicated, immunized animals remained sterile. Such animals developed only a minute erythematous lesion at the site of the injection. In nonimmunized animals there was a marked local response; a large purpuric, edematous, hyperemic lesion extended to the belly surface. At the site of injection in the nonintoxicated nonimmunized animals there was a marked leukocytic infiltration. In the intoxicated rabbits no macroscopic lesion developed at the site of injection. The responses of the animals intoxicated with alcohol and those actively immunized are emphasized to reveal that recovery requires a normal local and general response. If either immunity mechanism is suppressed the patients are overwhelmed by bacteremia. The presence of a local lesion suggests that antibodies have been formed.

How can we foster these responses? There are two methods of approach: we may either attenuate the organisms attacking or augment the responses of the patient.

Organisms which are grown in immune serum lose their capsules and their virulence and grow in chains. The colonies become rough. Organisms may also be attenuated by the addition of chemicals and may be killed in certain concentrations. Mice injected with attenuated pneumococci live longer than mice injected with more virulent organisms. Virulence may be measured in part by blood invasiveness and early death of injected mice. Sulfanilamide and its compounds attenuate pneumococci. But even attenuated organisms may cause death. Recently we grew a pneumococcus VII which was quite avirulent for mice from the cerebrospinal fluid of a child who died of its pneumococcus meningitis. It has long been known that mouse virulence and viru-

lence for humans are not the same. Even when obtained from the blood stream of patients who die of their bacteremia, the strains of pneumococcus XIV are rarely mouse virulent.

One of the earliest observations on the therapy of experimental pneumococcus infections was the saving of mice by the injection of homologous antiserum.

By the injections of serum we accelerate the normal process of healing from pneumococcal infection by providing antibodies in overwhelming quantities so that dissolved carbohydrate is neutralized and the capsules of the organisms are swollen so that they may be phagocyted. Before we embarked on the adventure of determining the value of refined serum in pneumococcal pneumonias, Dr. Park would end all my arguments against its use by saying, "but it does save the mice." Unless the organisms can be brought into contact with the antibodies or the chemicals, they are not affected. For healing it is necessary first, to give promptly large quantities of antibody, to have leukocytes and inflammatory response, and third, the infected tissues must have a circulation.

In the uninfluenced healing of the pneumonias we observed the development of 10 to 20 units of antibody and have employed the serum of such recovered patients to type homologous pneumococci. In the serum of a patient who received 300,000 units of rabbit serum there were 75 units per c.c. several hours later.

Modification of the virulence of the organism and augmenting the response of the host are the specific remedies employed in the treatment of the pneumonias.

From time to time there have been employed various agents for stimulating the immunity mechanism by employing antigens or vaccines during the pneumonias. Aside from theoretical objections: (1) the time required; (2) the futility in overwhelming bacteremic invasion and (3) the whipping of an already running horse, administration of vaccines to the pneumonia patient has not been found of value when subjected to trial in any adequate study.

For some therapeutic agents we are able to create working models for studying the effects of remedies as is done in the slide cells by Fleming and in bone marrow cultures by Osgood.

SPECIFIC THERAPY OF THE PNEUMONIAS—BULLOWA

TABLE I

Bone Marrow Study (E. E. Osgood)		Exp. 221					
Hours		0	20	24	44	48	69½
Control		470	121,000,000				
Rabbit Antipneumococcus Serum*		470	72,000,000				
Rabbit Antipneumococcus Serum* Plus Sulfanilamide**		470	13,500	3,400	85,000	75,000	
Rabbit Antipneumococcus Serum* Plus MB-693, 1-10,000		470	0	0	100	100***	looks sterile
Rabbit Antipneumococcus Serum* Plus MB-693, 1-50,000		470	180,000	238,000	21,000,000		
Horse Antipneumococcus Serum*		470	108,000,000				
Horse Antipneumococcus Serum* Plus Sulfanilamide**		470	14,000	3,500	51,000	71,000	
Horse Antipneumococcus Serum* Plus MB-693, 1-10,000		470	145	40	160	100***	looks sterile
Horse Antipneumococcus Serum* Plus MB-693, 1-50,000		470	1,445	1,000	16,000	14,000	
MB-693 1-10,000		68	50,000,000				

*Five units; **1-10,000; ***1 colony from inoculation of 0.1cc. of 0.2:20 dilution of the marrow culture. The figures indicate colonies per c.c.

In his very first aphorism Hippocrates remarked that "judgment is difficult and experience fallacious." This applies not only to the observations in patients but also to animal trials because in both experiments may be faultily devised and incorrectly interpreted or applied.

A determination of the potency of sera was retarded for a long time because Cole varied the dose of organisms, titrating against standard amounts of antibody. He soon reached an inoculum of organisms from which the mice could not be saved. Felton made a distinct contribution to the serum therapy of the pneumonias by introducing his method of titration, varying the amounts of antibody used against a known fatal dose of organisms and by comparing sera titrated against a known standard. Yet, when a similar method was applied in the titration of chemotherapeutic agents, it resulted in the rejection of sulfapyridine as a possible therapeutic agent by the first makers of the drug in this country, Roblin and Williams. Their production of this chemical antedated the work of Ewins. It was found that the drug would protect mice only from hundreds of fatal doses. Serum protects mice against many millions of fatal doses per c.c. Whitby then introduced the method of daily feedings and found that the fed mice survived whereas the controls died.

Whitby's experiments were faulty because he destroyed his mice at the end of seven days. He fed them amounts of the drug which it is quite impossible to feed patients without producing severe intoxication. If we were to give a patient proportionately, by weight, the amount of drug Whitby gave his mice, they would receive 120 grams a day. We now know that with concentrations of 5 to 10 mgs. per 100 c.c. of the free drug maintained in the blood, pneumococci may be kept from multiplying and in some cases, destroyed. This is especially true if there is also antibody. McLeod, on repeating Whitby's experiments, found that if he preserved his mice longer than seven days, they began to die as the result of the infection he had introduced and which had only been held in check. This may occur in practice, the temperature may be depressed but the organisms are still present. D. H. Goldstein found that rats can be saved by sulfapyridine and their infection completely overcome when pneumococcus III pneumonias were induced with a certain strain.

Animal experiments guide us in forming our judgement concerning the value of a remedy, but an agent may save mice and still produce such toxic effects in the amounts necessary to effect a cure, that it should not be used on patients. Thus, the antibody solutions of Huntoon produced,

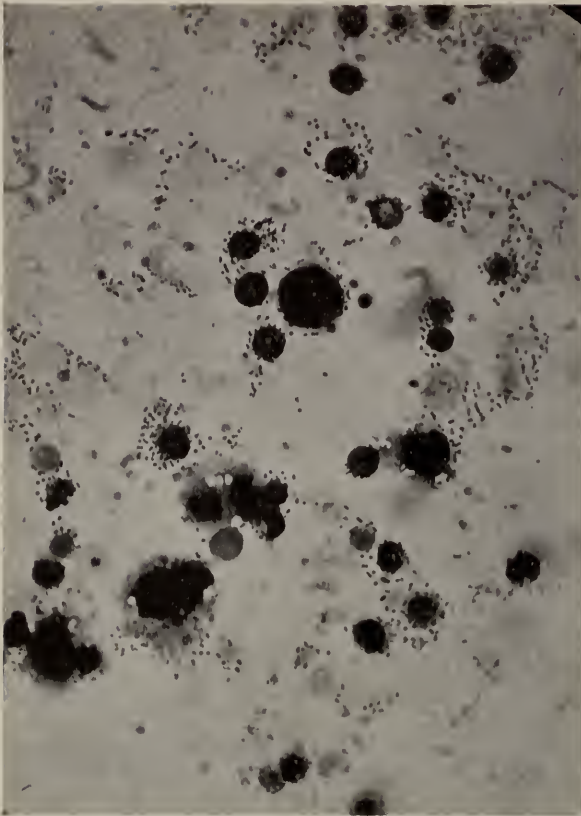


Fig. 1.

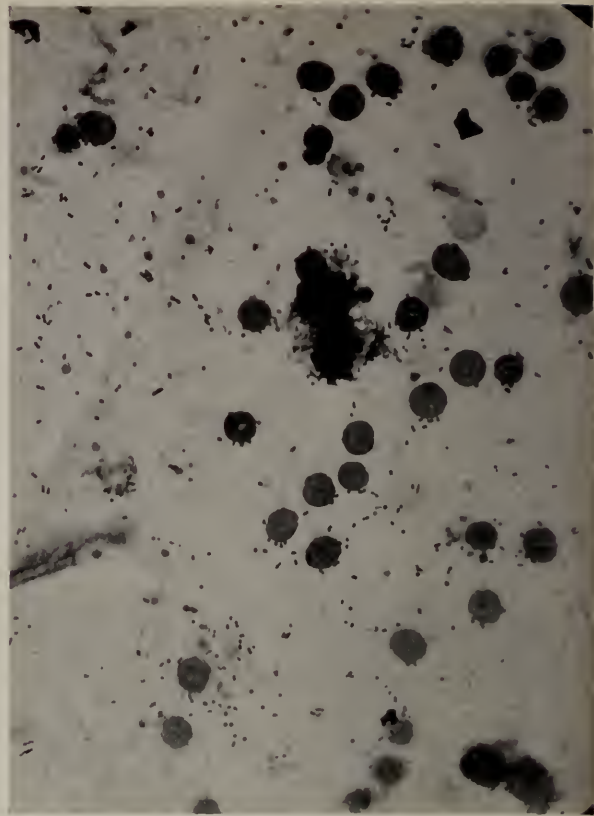


Fig. 2.

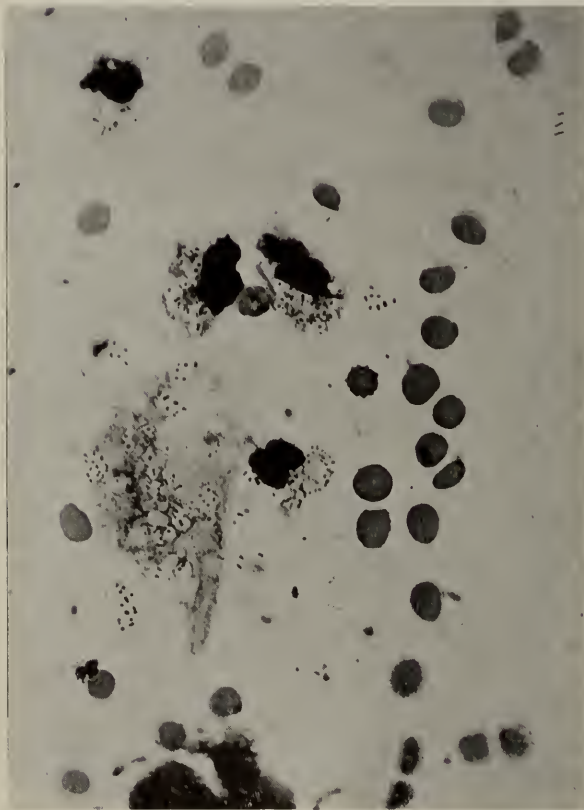


Fig. 3.

in some cases, such severe (even fatal) thermal reactions that its use was abandoned. The results of experiments on mice with a brief life span were applied by Cecil and Blake to monkeys where the time relations are much more like those in human disease, and greatly increased our knowledge. The effects of sulfanilamide and of sulfapyridine on the bone marrow, the skin, the liver and kidneys were not observed, however, until these drugs were employed clinically.

The working model of Osgood seems especially important in connection with the evaluation of serum and sulfanilamide or sulfapyridine. I present them not only for the information which they give but also because they reveal how some misinterpretations may occur unless experiments are adequately checked. We sent to Dr. Osgood in Oregon a virulent culture obtained from the blood of a patient suffering from a pneumococcus VII pneumonia. In the first experiments it was found that the pneumococci were not killed by 1:10,000 sulfapyridine (M & B 693) alone, even though a small inoculum was used. In later ex-

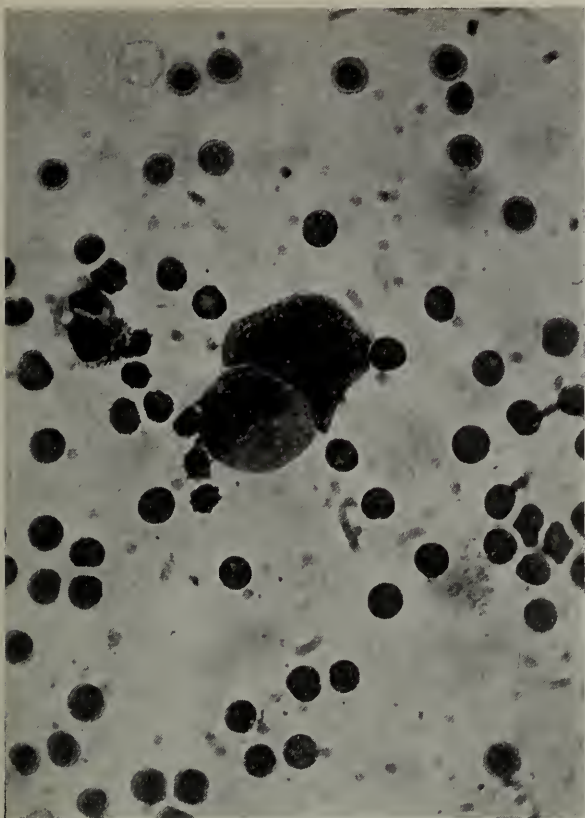


Fig. 4.

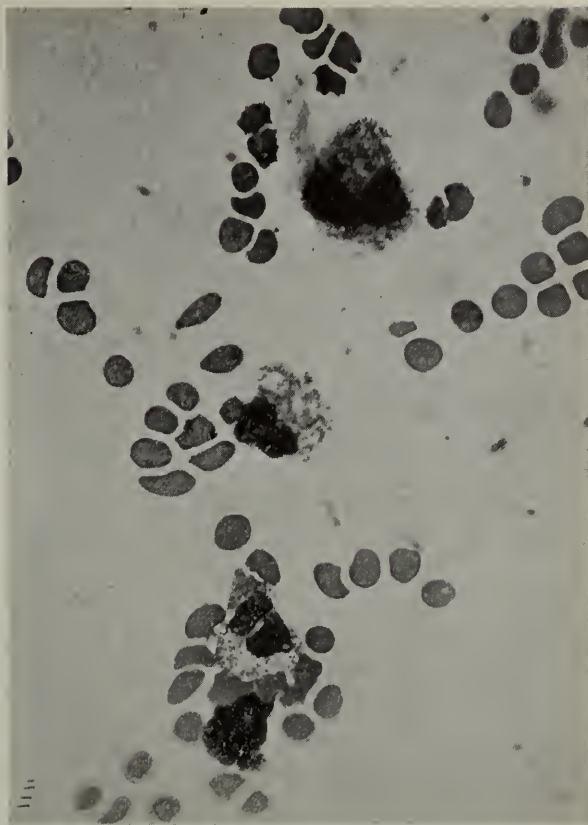


Fig. 5.

periments it happened that these organisms were killed in this dilution but they had then lost their virulence. In the original experiment No. 221, as seen in Table I, it was shown that antipneumococcus serum to the extent of 5 units per c.c. was a great advantage, that sulfapyridine was superior to sulfanilamide in sterilizing the bone marrow culture but that sterility was only achieved when serum was present even in the small amount indicated. In a later experiment, No. 223, when the organisms had lost their virulence, it was found that even a large inoculum of some 1,700 organisms was sterilized with 1:10,000 sulfapyridine alone. It will be observed that in this instance there was little phagocytosis, yet the organisms have disappeared.

The micrographs (Figs. 1-5) show the bone marrow at the end of forty-eight hours, in experiment No. 223 of Osgood when pneumococcus VII (virulent when used in experiment No. 221), had lost its mouse virulence and resistance to sulfapyridine when exposed to it, in 1:10,000 dilution.

1. Control—note pneumococci scattered throughout slide. There is no phagocytosis and capsules are unswollen at forty-eight hours.

2. Sulfapyridine 1:10,000 alone—note disappearance of organisms without phagocytosis at forty-eight hours.
3. Rabbit serum, 5 units per c.c.—little phagocytosis, slightly swollen capsules at forty-eight hours.
4. Sulfanilamide 1:10,000 and rabbit serum—swollen capsules, incomplete phagocytosis at forty-eight hours.
5. Sulfapyridine 1:10,000 and rabbit serum—phagocytosis of all the pneumococci at forty-eight hours.

* * *

It seems pertinent to discuss the factors which modify the results of therapy in the host. We encounter suffering from pneumonia, patients of various ages from earliest infancy to tottering age. It is a well attested fact that resistance to the pneumonias differs at different periods of life. The factors that determine this resistance depend in part on anatomical considerations; in part on development, and on the previous experiences, both traumatic and infectious, of the host.

In the infant death rates are high; the surface of the body is relatively small in relation to the mass. The capacity to lose heat and moisture is limited in proportion

to metabolic demands. Moreover, the respiratory passages are small and may be readily blocked by secretion. On this account measures which assist the removal of heat and moisture from the surface of infants have spectacular results. Children over two, on the other hand, have larger air passages and an active immunity mechanism.

With advancing years, successful response to infectious disease is less ready, in part because of the degenerative aging changes in the viscera and skeleton and in part the result of preceding destructive disease. It is probable that antibodies are formed in the bone marrow and in the reticulo-endothelial system, in the liver and in the adrenals, and in older people these and the bone marrow may fail to respond adequately.

Many factors in the host which modify its response are unknown. Diet and vitamins, nutrition, either normal or excessive, or mineral metabolites may have a part which has not been determined with accuracy.

In the light of all these confusing factors, how shall the physician, with a limited number of cases, choose a remedy? What shall he demand of those who have the opportunity to study large numbers of cases? How shall they set up their experiments and interpret them so that the practitioner may have information from which he may intelligently make a choice instead of being forced or drawn either by the pressure of authority, clamor or interest? How shall he avoid violent swings in favor of one remedy or another according to his latest undigested experience? How shall he avoid the maelstrom of conflicting opinion and best serve his patients? To do this, an intelligent physician must have the data presented to him with such protocols of the entire series of observations that he can analyze the experiment as if it were his own.

The experiments must have a predetermined end point. To exclude from consideration those patients who died within a few hours after the remedy had been given without a precise description of their condition and the effect of the therapy, may conceal a primary harmful action. To exclude patients who die in less than twenty-four or forty-eight hours as is currently done in many hospital statistics, may conceal faults of omission or of commission or both

and has no place in the study of the pneumonias.

An example of misleading interpretation is the preliminary report of J. H. Bolton published from the Royal Melbourne Hospital in Australia, on the "Value of Stock Vaccine in the Treatment of Pneumonia," in the *Quarterly Journal of Medicine*, April, 1938. The author concludes with the statement "The Vaccine treatment appears to be successful in reducing the duration of uncomplicated pneumonia by an average of three days with a standard deviation of the mean of 0.85 days." However, in the study of the age table it was found that only 19 per cent of his vaccinated patients were over forty years of age while in the controls there were 35 per cent and when he considered the type of invading organism 81 per cent of the vaccine cases were drawn from the types from which the vaccine was prepared, while only 50 per cent of the control cases were drawn from these types. Fully half of the control cases were of unindicated type and therefore, of unknown average duration. If we subtract such cases and reduce the number of cases to comparable groups, we have only seventeen vaccine treated cases and nineteen control cases from which to infer that three days of illness might be saved in a disease whose duration may, without therapy, vary from one day to more than nineteen days. Two patients in the streptococcus viridans group in the control series were of unusually long durations, eighteen and twenty-three days. Eliminating these two cases from the control group and the streptococcus viridans cases in the vaccine group, the difference in duration becomes nonsignificant, and using the criteria of Bolton himself the probability is only one out of five, or .21 against random occurrence. Reports of this character should not be accepted at their face value. Moreover, this author disregards what are actually the most important objectives of pneumonia therapy. Did more patients survive and were there fewer complications and did he save those more severely stricken as measured by bacteremia?

We have always taken as the end point in our studies, death or survival—did the patient leave the hospital recovered from his pneumonia—we have counted as failures of therapy any, whether due to the failure

of serum or not, where the patient's life terminated before he was discharged.

How many cases must be compared in order that a conclusion can be reached?

will not be significant if one additional death or recovery in either group were to greatly change the results. There are statistical methods for determining whether a signifi-

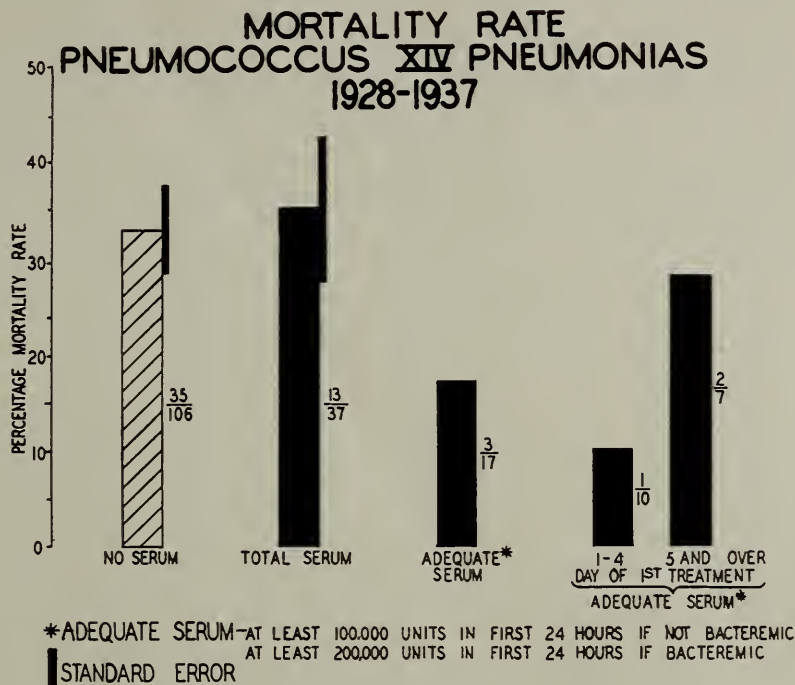


Fig. 6

When we commenced our work we were frequently told by practitioners that no statistics would ever be available because many thousands of cases would have to be observed for each type before any conclusions could be reached. We have not been impressed with this objection to statistical analysis but have relied on having homogeneous samples by considering the factors which determine death rate. Larger numbers may make small differences significant, but no increase in the numbers of cases studied will take the place of having the populations to be compared similar. If the populations are dissimilar the samples taken from one group may not be comparable in respect to death rate. It is as though one were to have two piles of mixed coins, quarters, dimes, nickels or cents and to draw from one group several having the characteristics of a quarter and from another those stamped a nickel and to regard them as the same and as a sample of the remainder. It would be poor business to accept all coins as equivalent without reference to the characteristics that give them value.

If the populations are homogenous and comparable, the differences in the results

cant difference in the results followed treatment, but no amount of statistical juggling, either with the Chi square or the consideration of the ratios of the standard errors, will atone for a fault in the selection of the material included in the compared groups. If, for instance, infants, adults and children were to be considered because they had a single type of pneumonia as homogenous groups we would be led into serious error. It is even wise, in studying death rates in pneumonias, to separate the case into decades or if the material is otherwise insufficient into those over and under forty years of age.

In our studies of the effect of serum treatment, we have compared the cases in which serum was employed and cases in which serum is withheld. In other respects the cases were treated precisely alike and even then the populations may not be comparable. Patients treated early in the disease before irreversible changes or metastatic foci have been established, or before the immunity mechanism has been in part successful, must be placed in a different category from those treated late in the disease. The amount of serum administered may completely

SPECIFIC THERAPY OF THE PNEUMONIAS—BULLOWA

TABLE II. LITTAUER PNEUMONIA RESEARCH FUND OF NEW YORK UNIVERSITY
Harlem Hospital

Children

September 1, 1938 to February 13, 1939

UNDER 2 YEARS									2-12 YEARS								
Serum Alone			Sulfapyridine and Serum			Sulfapyridine Alone			Serum Alone			Sulfapyridine and Serum			Sulfapyridine Alone		
Cases	Deaths	%	Cases	Deaths	%	Cases	Deaths	%	Cases	Deaths	%	Cases	Deaths	%	Cases	Deaths	%
25	2	8.0	2	0	0.0	6	0	0.0	36	0	0	3	0	0.0	7	0	0
2*	0*	0.0*	0*	0*	0.0*	0*	0*	0.0*	3*	0*	0.0*	*	0*	0.0*	0*	0*	0.0*
1-4th DAY									5th DAY AND OVER								
11	0	0.0	2	0	0.0	5	0	0.0	42	2	4.8	3	0	0.0	7	0	0.0
0*	0*	0.0*	0*	0*	0.0*	0*	0*	0.0*	2*	0*	0.0*	0*	0*	0.0*	0*	0*	0.0*

	Cases	Deaths	Per cent Mortality
Serum Alone	61 5*	2 0*	3.3 0.0*
Sulfapyridine and Serum	5 0*	0 0*	0.0 0.0*
Sulfapyridine Alone	13 0*	0 0*	0.0 0.0*

*Bacteremia.

change the result, as shown by a more careful analysis of my adult pneumococcus XIV pneumonia patients (Fig. 6).

In these cases the crude comparison showed an apparent failure of serum but when analyzed for day of disease and adequacy of dosage, pneumococcus XIV serum was found to be of great value. This conclusion has been confirmed by all those who have employed it in adequate doses.

In addition to segregation of cases in accordance with the factors mentioned, age, day of disease, presence of bacteremia, what other safeguards should be demanded of the experimenter in order that the samples shall be random? They should be alternated to avoid as much as possible marked seasonal difference of virulence or susceptibility. Alternation should be on a single service so that the criteria of diagnoses and the indications for other therapies which alter mortality rates, even though nonspecific, may be the same. To take the cases admitted to one service as a control against another is not conclusive even though large numbers are compared. However, with such alterna-

tion, the cases of several services may be combined.

Under what circumstances is it worth while to apply a new recommended therapy in pneumonia? Certainly, in the treatment of pneumonia, unless the death rate is the same or lowered and there are no crippling sequelæ, considerations of cost or ease of application should not be determining motives. With serum there is a distinct reduction of death rate. It is incumbent upon the physician to employ such therapy when it reduces a death rate of 25 per cent to 15 per cent or less. This is a reduction of 60 per cent. Competing therapies must do as well before they are substituted. It is not necessary, nor would it be wise, to compare each newly offered specific remedy with untreated cases. They may be compared either in working models and animals and then either alternated or rotated in the clinic, using the best previous specific therapy as a yardstick.

* * *

A large number of therapies have been proposed for the pneumonias. Some, such as alcohol, persist and have the support of

SPECIFIC THERAPY OF THE PNEUMONIAS—BULLOWA

TABLE III. LITTAUER PNEUMONIA RESEARCH FUND OF NEW YORK UNIVERSITY
Harlem Hospital

Adults

September 1, 1938 to February 13, 1939

UNDER 40 YEARS									40 YEARS AND OVER								
Serum Alone			Sulfapyridine and Serum			Sulfapyridine Alone			Serum Alone			Sulfapyridine and Serum			Sulfapyridine Alone		
Cases	Deaths	%	Cases	Deaths	%	Cases	Deaths	%	Cases	Deaths	%	Cases	Deaths	%	Cases	Deaths	%
97	9	9.3	43	4	9.3	26	2	7.9	58	12	20.8	28	4	14.3	19	1	5.3
12*	3*	25.0*	7*	1*	14.4*	5*	1*	20.0*	9*	4*	44.4*	4*	2*	50.0*	2*	1*	50.0*
1-4th DAY									5th DAY AND OVER								
71	6	8.5	33	0	0.0	19	1	5.3	78	11	14.1	37	8	21.6	24	2	8.3
6*	0*	0.0*	5*	0*	0.0*	1*	0*	0.0*	14*	6*	43.0*	6*	3*	50.0*	6*	2*	33.3*

	Cases	Deaths	Per cent Mortality
Serum Alone	155 21*	21 7*	13.5 33.3*
Sulfapyridine and Serum	71 11*	8 3*	11.3 27.0*
Sulfapyridine Alone	45 7*	3 2*	6.7 29.0*

*Bacteremia.

wishful thinking. Digitalis was once believed a good therapy and, in the first years of my observations, no patients escaped digitalization until the painstaking studies of Wyckoff, Dubois and Woodruff showed, in an alternated series, that (with the exception of pneumococcus II pneumonias) those digitalized were handicapped. Later, vaccines were proposed. With Dr. Park we selected thirty patients and, employing a special resident to conduct the study, a stock vaccine similar to that used by Bolton, was subcutaneously injected. The patients were given their doses regularly at six-hour intervals. At the conclusion of the observations, the records of thirty other patients treated with specific therapy during the same season, of the same age, sex, day of admission, pneumococcus type, extent of lesion and illness as measured by a rating scale, were taken for comparison and it was found that there was no essential difference as the result of therapy, either in fatality or duration.

Anyone who studies the reports of Morgenroth on quinine will note that no controls were used and that his belief in the

value of the drug is based on clinical impressions. To this day physicians trained in his tradition are delighted when the disease terminates in several days either by lysis or by crisis. Cole and others observed the effect of optochin. It was abandoned when it was found that the drug produced amblyopia and in some cases permanent blindness. More recently, MacLachlan, Johnston, Bracken and Crum studied hydroxyethylapocuprein. Their results with it are not as good as those achieved with serum and in respect to their serotherapy, the published data are inadequate. High frequency has been advocated and was employed on our service for an entire season and at the end we were not impressed by any essential effect on the course of the disease; it was a counter-irritant and reduced pain. Infra red radiation from a blackened lamp is a safer and cheaper instrument. X-ray therapy has been proposed but I have been unable to find in the published results of any of its advocates sufficient data upon which to base a judgement of its value. Either termination of disease or a slight fall of temperature after twenty-four hours have

SPECIFIC THERAPY OF THE PNEUMONIAS—BULLOWA

TABLE IV. LITTAUER PNEUMONIA RESEARCH FUND OF NEW YORK UNIVERSITY

Harlem Hospital

Adults

September 1, 1938, to February 13, 1939

Type	SERUM ALONE						TREATMENT SULFAPYRIDINE AND SERUM						SULFAPYRIDINE ALONE					
	1-4th Day Cases Deaths %	5th Day C D %	† Day C D %	1-4th Day Cases Deaths %	5th Day C D %	† Day C D %	1-4th Day Cases Deaths %	5th Day C D %	† Day C D %	1-4th Day Cases Deaths %	5th Day C D %	† Day C D %	1-4th Day Cases Deaths %	5th Day C D %	† Day C D %	1-4th Day Cases Deaths %	5th Day C D %	† Day C D %
I	15 0*	1 0*	15 5*	0 0*	15 5*	0 0*	10 3*	0 0*	8 1*	0 0*	6 1*	0 0*	8 2*	0 0*	1 0*	0 0*	0 0*	0 0*
II	2 0*	0 0*	1 1*	1 1*	1 1*	0 0*	1 0*	0 0*	0 —	—	1 0*	1 0*	0 —	0 —	—	—	—	—
III	4 0*	0 0*	4 0*	0 0*	2 0*	1 0*	1 0*	0 0*	5 0*	0 0*	3 0*	0 0*	2 0*	0 0*	—	—	—	—
IV	11 1*	1 0*	2 0*	0 0*	2 0*	0 0*	3 0*	0 0*	1 0*	0 0*	0 —	—	1 0*	0 0*	—	—	—	—
V	3 1*	0 0*	7 1*	0 0*	2 0*	0 0*	2 0*	0 0*	1 0*	1 0*	1 0*	0 0*	2 1*	1 1*	—	—	—	—
VI	3 0*	0 0*	2 0*	0 0*	1 0*	0 0*	1 0*	0 0*	0 —	—	0 —	—	0 —	—	—	—	—	—
VII	12 2*	2 0*	13 3*	3 2	1 0*	1 0*	10 0*	0 0*	13 3*	1 1*	4 0*	0 0*	4 0*	0 0*	—	—	—	—
VIII	5 1*	0 0*	8 1*	0 0*	3 1*	0 0*	3 1*	0 0*	2 1*	2 1*	1 0*	0 0*	3 2*	1 1*	—	—	—	—
IX	0 —	—	2 0*	0 0*	0 —	—	0 —	—	0 —	—	0 —	—	0 —	—	—	—	—	—
XI (Crosses with XVI)	0 —	—	1 0*	1 0*	0 —	—	0 —	—	0 —	—	0 —	—	0 —	—	—	—	—	—
XII	1 0*	0 0*	0 —	—	0 —	—	0 —	—	0 —	—	0 —	—	0 —	—	—	—	—	—
XIII	0 —	—	1 0*	1 0*	0 —	—	0 —	—	1 0*	1 0*	0 —	—	0 —	—	—	—	—	—
XIV	3 1*	0 0*	4 2*	2 2*	0 —	—	0 —	—	2 1*	2 1*	1 0*	0 0*	0 —	—	—	—	—	—
XV	1 0*	0 0*	1 0*	0 0*	0 —	—	0 —	—	0 —	—	0 —	—	0 —	—	—	—	—	—
XVIII	1 0*	0 0*	3 0*	0 0*	0 —	—	0 —	—	0 —	—	0 —	—	0 —	—	—	—	—	—
XIX	3 0*	1 0*	1 0*	0 0*	2 1*	0 0*	2 1*	0 0*	0 —	—	1 0*	0 0*	0 —	—	—	—	—	—
XX	0 —	—	2 0*	0 0*	0 —	—	0 —	—	0 —	—	0 —	—	0 —	—	—	—	—	—
XXII	0 —	—	1 0*	0 0*	0 —	—	0 —	—	0 —	—	0 —	—	0 —	—	—	—	—	—
XXIII	0 —	—	0 —	—	0 —	—	0 —	—	0 —	—	0 —	—	1 0*	0 0*	—	—	—	—
XXIV	0 —	—	1 0*	0 0*	0 —	—	0 —	—	0 —	—	0 —	—	0 —	—	—	—	—	—
XXV	0 —	—	3 0*	0 0*	0 —	—	0 —	—	0 —	—	0 —	—	0 —	—	—	—	—	—
XXXI	0 —	—	0 —	—	0 —	—	0 —	—	0 —	—	0 —	—	1 0*	0 0*	—	—	—	—
XXXII	1 0*	0 0*	0 —	—	0 —	—	0 —	—	0 —	—	0 —	—	0 —	—	—	—	—	—
M. I.†	6 0*	1 0*	6 1*	3 1*	3 1*	2 1*	0 —	—	4 0*	0 0*	1 0*	0 0*	0 —	—	2 0*	0 0*	1 0*	0 0*
TOTAL	71 6*	6 0*	8.5% 0.0*	78 14*	11 6*	14.1% 43.0	6 1*	4 1*	66.6% 100.0*	33 5*	0 0*	0.0% 0.0*	37 6*	8 3*	21.6% 50.0*	1 0*	0 0*	—
	19 1*	1 0*	5.3% 0.0*	24 6*	2 2*	8.3% 33.3*	2 0*	0 0*	0.0% 0.0	19 1*	1 0*	5.3% 0.0*	24 6*	2 2*	8.3% 33.3*	2 0*	0 0*	0.0% 0.0

*Bacteremia

†One Case Pn. "Wilder"

‡M. I.—Multiple Infections (two or more pneumococci)

been considered an effect. A heterogeneous group of cases has been compared with a heterogeneous group of untreated cases without regard to pneumococcus type, dura-

pneumococcus type or of blood invasion. This study lacks any vestige of scientific value.

Pneumothorax was proposed and, at first,

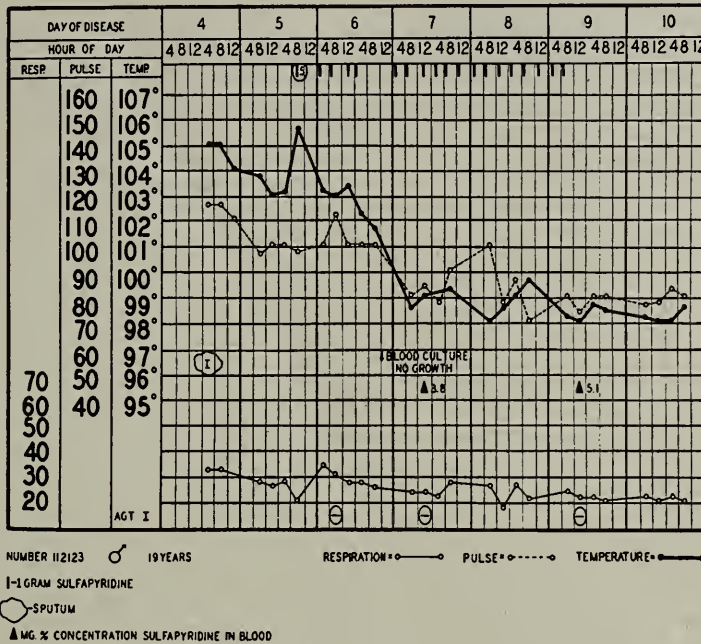


Fig. 7. Case 1.

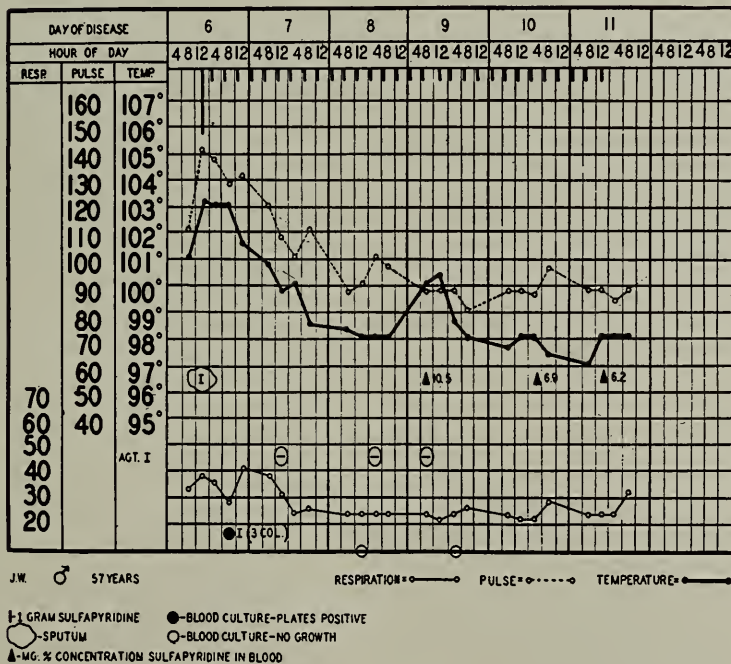


Fig. 8. Case 2.

tion of disease, or bacteremia at the time of applying x-ray therapy. More recently, deuteroproteose was recommended by Brooks. A large number of cases were treated without careful study so as to exclude tuberculosis and no record is given of

lauded on the basis of eighteen cases. No consideration was given the effect of reducing the respiratory area in cases with severe invasions; the series was too small to determine whether the occurrence of bacteremia was influenced or whether the

death rate was reduced. Even Blake, the sponsor of the method in America, is now content only to employ it for the relief of pain, a purpose to which I had assigned it

additions they will be published and analyzed in due season.

The fever charts present some of our experience with sulfapyridine in individual

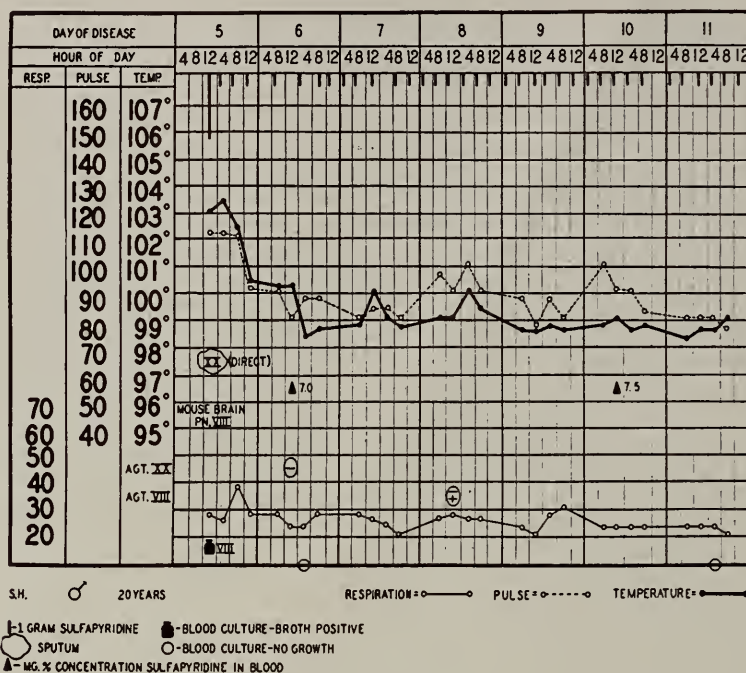


Fig. 9. Case 3.

two years previously after an experience with forty-two cases.

Most recently have come the studies with sulfanilamide and sulfapyridine. There can be little question of the importance of sulfapyridine in experiments on animals. The published reports on patients have not been sufficiently controlled either to establish its value as a life saving remedy in comparison with serum or to determine its potentialities for harm.

Extremely favorable reports have come from Evans and Gaisford and from Dyck and Reid in England; from Agranat, Dreosti and Ordman in South Africa; from Flippin, Lockwood, Pepper and Schwartz; from Barnet, Hartman, Perley and Bukoff; from Plummer; from McIntosh and others in America. It seems worth while at this time, to give you my own experience. It should be remembered that this is a preliminary report in which the strict rotation of cases was not undertaken until the last seven weeks. The degree of bacteremia, the number of complications or the association with other disease has not been compared in the two groups. These statistics are not valuable by themselves, but with

cases, as given in the following brief reports:

Case 1.—L. A., a nineteen-year-old boy with pneumococcus I pneumonia without bacteremia, was treated on the fifth day with sulfapyridine; initial dose was gm. 5; the continuation doses gm. 1 as indicated on the fever chart. Concentration of free sulfapyridine* was 3.8 mg. per 100 c.c., later 5.1 mg. per 100 c.c. He recovered. (Fig. 7).

Case 2.—This case exemplifies the result with a slight bacteremia due to pneumococcus I. A fifty-seven-year-old man with a bacteremia (three colonies per c.c.), was treated on the sixth day. Initial dose of sulfapyridine gm. 5; continuation doses gm. 1 as indicated. Concentration, 9th day, 10.5 mg. per 100 c.c., later 6.9 mg. per 100 c.c., and 6.2 mg. per 100 c.c. (Fig. 8).

Case 3.—The fever chart shows a twenty-year-old patient who had pneumococcus XX and pneumococcus VIII in the sputum on the fifth day, pneumococcus VIII in the blood. He recovered after receiving sulfapyridine. The concentration reached was 7. mg. per 100 c.c. The patient developed agglutinins on the eighth day for pneumococcus VIII.

Case 4.—Successfully treated pneumococcus XIV pneumonia is illustrated in the fever chart of a fifty-seven-year-old man treated on the third day of pneumococcus XIV non-bacteremic pneumonia. Initial dose of sulfapyridine 5 gm., continuation dose 1 gm. as indicated.

*Free sulfapyridine is intended in all graphs.

SPECIFIC THERAPY OF THE PNEUMONIAS—BULLOWA

Case 5.—This case shows the result of treatment with serum and with sulfapyridine in the same patient. A.T., a woman, thirty years old, pneumococ-

of J.W., a forty-six-year-old man who had pneumococcus V pneumonia with bacteremia on the seventh day, involving the left lower lobe. On the ninth

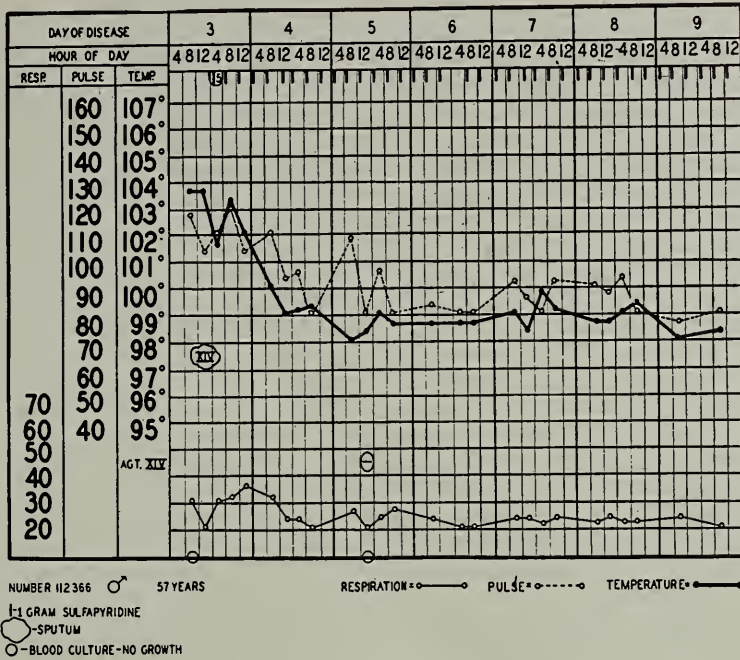


Fig. 10. Case 4.

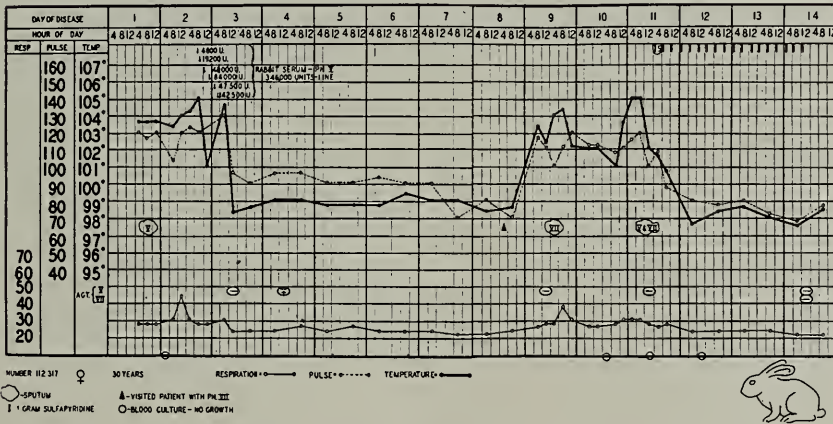


Fig. 11. Case 5.

cus V right lower lobe pneumonia. Prompt response to rabbit serum treatment on 2nd day. On the eighth day she visited with a patient convalescent from pneumococcus VII pneumonia. There promptly developed involvement of left lower lobe and fresh rusty sputum containing pneumococcus VII. Sulfapyridine administered with prompt response and recovery.

Case 6.—Unsuccessful and fatal result in pneumococcus II pneumonia. Fever chart of a thirty-nine-year-old man admitted on the second day of pneumococcus II pneumonia without bacteremia, who died on the fourth day of his illness. He had been given the advantage of oxygen chamber care. A sulfapyridine concentration of 7.5 mg. per 100 c.c. was obtained.

Case 7.—Failure of sulfapyridine in large dose to control pneumococcus V pneumonia. Fever chart

day the temperature and pulse were depressed for thirty-six hours; then he escaped from the effect of the drug and the right lower lobe was involved. No agglutinins were present on the eighth, ninth and tenth days. A fresh course of sulfapyridine with a two grams continuation dose was instituted. The temperature was irregularly depressed. He died on the nineteenth day. The sulfapyridine concentration was only 4.4 mg. per 100 c.c. in spite of extra dosage. An extension of the lesion was found on post mortem examination.

Case 8.—A case in which the blood was invaded with a type different from that in the sputum. Sulfapyridine failed to sterilize the blood, though agglutination was positive. This patient was actually suffering from pneumococcus VIII as shown by blood culture, though the sputum contained pneumococcus XX. The temperature became normal but

SPECIFIC THERAPY OF THE PNEUMONIAS—BULLOWA

the pulse continued elevated. When the sulfapyridine was stopped, both temperature and pulse rose. He developed a bacterial endocarditis from which he

pressed. There was final rise of the temperature, cardiac tamponade and infection of the pericardium with streptococcus hemolyticus.

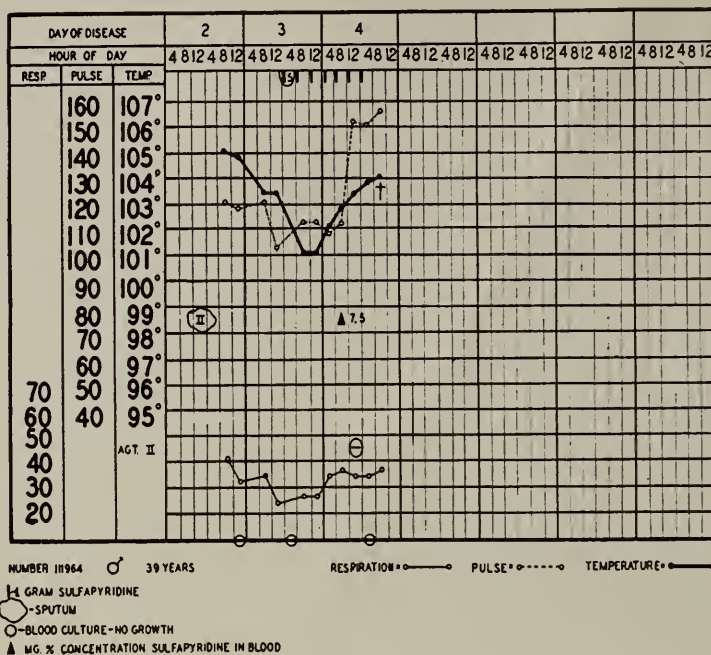


Fig. 12. Case 6.

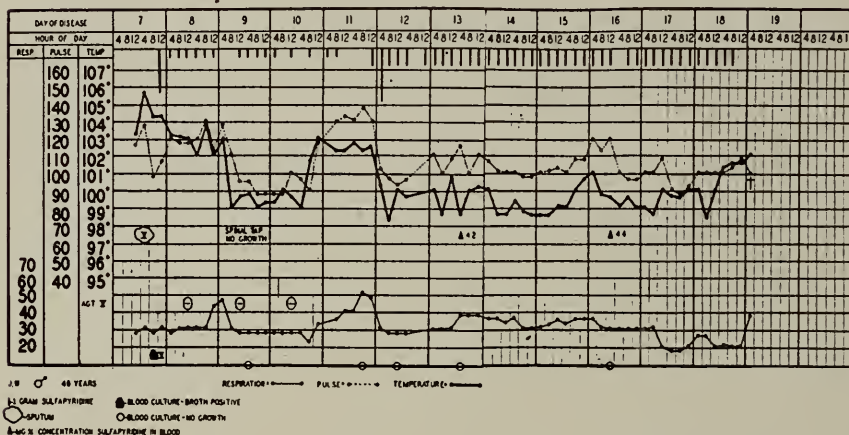


Fig. 13. Case 7.

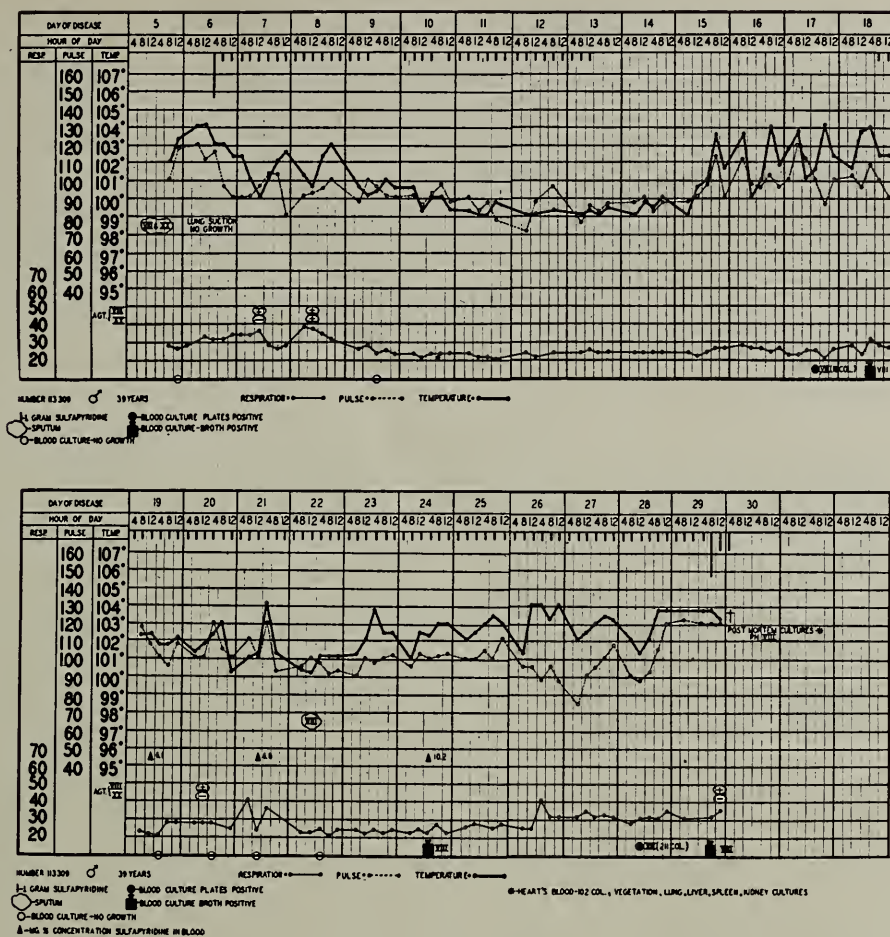
died. There was strong agglutination for pneumococcus VIII. On autopsy, abundant vegetations covered with thick green pus were found on the aortic valve. The lesion on the valve was separated from the blood stream by the pus and an adequate inflammatory reaction was not present.

Case 9.—Failure of sulfapyridine to influence involvement of pleura and pericardium. Fever chart of A.V., a thirty-five-year-old man, entering on the fifth day of right sided lobar pneumonia due to pneumococcus I. He was treated with horse serum and sulfapyridine as shown. Note fall of temperature without slowing of pulse and the escape from its influence when the drug was stopped, as well as the development of empyema and pericarditis though sulfapyridine had been resumed. The temperature was depressed. The concentration obtained was 6 mg. per 100 c.c. While sulfapyridine was being administered the pericarditis was sup-

Case 10.—Development of neutropenia, failure to sterilize empyema cavity with high concentration of sulfapyridine. Fever chart of a man, forty-six years of age, who received 520,000 units of pneumococcus I horse serum on the fifth and sixth days of his illness, and sulfapyridine. Concentrations of 8.3 to 10.7 mg. per 100 c.c. were obtained. The temperature was depressed but a localized empyema was already present. While the sulfapyridine was being administered, the empyema fluid remained thin with only 15 per cent sediment. The concentration of free sulfapyridine in the empyema fluid reached 53.2 mg. per 100 c.c. without sterilizing it. After one of the chest aspirations, the blood was temporarily invaded. Five days after the sulfapyridine was discontinued a marked leukopenia and neutropenia developed, the blood count falling from 32,000 to 2,700 and at one time the neutrophils were only 6 per cent of 3,200 leukocytes. At this time there was marked anemia. An iris shaped papular and erythematous lesion de-

veloped on the hard palate after 101 gms. of sulfapyridine had been given. The drug was stopped and the palate lesion subsided. Two transfusions and liv-

typing now available, it can be administered before the type is obtained.



Figs. 14, 15. Case 8.

er extract were given parenterally. The blood count now rose to 36,000 with 95 per cent polynuclears and the empyema fluid became creamy so that the sediment was 90 per cent. The patient was thoracotomized and finally recovered.

ADVANTAGES OF USING SULFAPYRIDINE

1. It is alleged to be nonspecific in its effect upon pneumococci. This is not definitely known. Difference in the effect on certain types and strains must be explored. If it is non-selective it will be a distinct advantage, particularly in those patients who have several infections simultaneously or where the sputum reveals one type and the actual invading organism is different.

2. It is much less costly than serum.

3. It requires less skill to administer although it requires, to prevent disaster, great care and laboratory observations of the blood count and the concentration obtained in the blood.

4. In spite of the earlier and better

5. There is no serum sickness.

6. It may penetrate in sufficient amount into serous cavities so that we have observed healing of pneumococcic meningitis, apparently in direct relation to the concentration achieved and failure when this concentration was not obtained or not maintained sufficiently long. Apparently, the concentration in the cerebrospinal fluid is about two-thirds that in the blood. The suppression of the leukocytic response may be of distinct value in meningeal and bone inflammation due to pneumococci. It may prevent empyema though it does not cure it.

DISADVANTAGES OF USING SULFAPYRIDINE

1. It does not neutralize the specific carbohydrate.

2. The lack of certainty concerning its value or toxicity in any patient.

3. It is irregularly absorbed and may be irregularly excreted and metabolized. The

SPECIFIC THERAPY OF THE PNEUMONIAS—BULLOWA

amount of acetylation in any patient is unpredictable. Osgood found that the acetylated sulfapyridine was inactive.

4. No one has determined the time neces-

5. It is a poisonous drug acting on the tissues of the host as well as upon the invading pneumococcus, and as yet the margin of safety is not known. It may cause per-

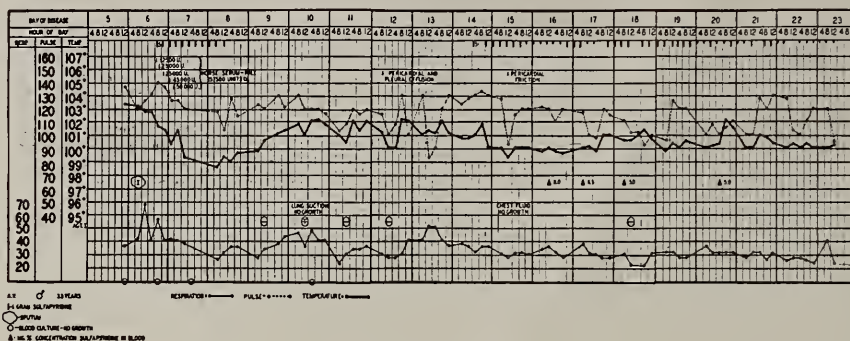
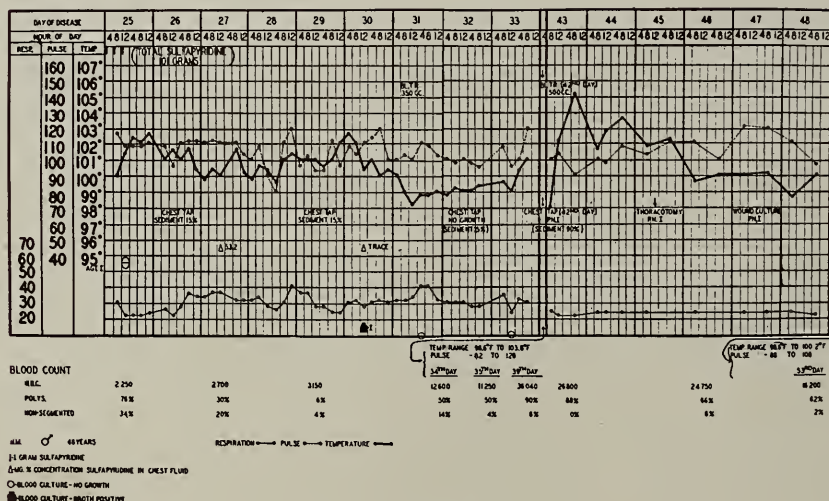
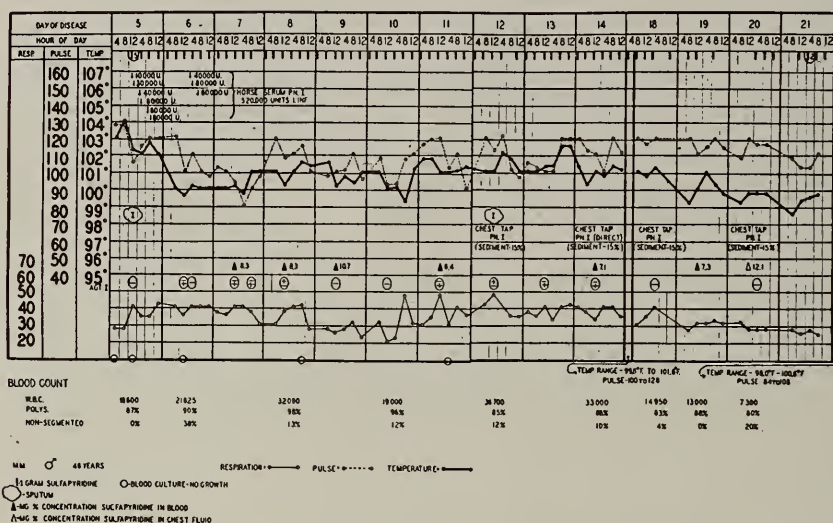


Fig. 16. Case 9.



Figs. 17, 18. Case 10.

sary for the action of these drugs at a given concentration or whether maintenance of high concentration for a short time is preferable as more effective and less dangerous than a lower one for a longer period.

manent damage. This has been observed with sulfanilamide. (There is, as yet, no certain knowledge concerning effective concentrations in the blood. Various concentrations have succeeded or failed, due either

to variation in host antibody production or to susceptibility of the invading organism.)

6. The drug does not act if out of contact with living tissues. It will not sterilize abscess cavities or foci from which organisms may be absorbed. These must be attacked, as in the case of serum, by surgical measures.

7. When the drug is stopped or while it is administered, there may be a period of elevated temperature, apparently related to the use of the drug. (Sulfapyridine sickness.)

8. The effect of the drug is quickly lost and if sterilization of the blood stream, bone or lung is not complete, the patient is soon left unprotected. It takes some time for all serum antibodies to disappear from the blood.

EFFECTS OBSERVED IN USING SULFAPYRIDINE

1. Severe nausea and vomiting, diarrhea and tympanites and ulcers in the rectum.
2. Fullness of the head.
3. Marked prostration.
4. Icterus and hemolytic anemia.
5. Marked neutropenia and agranulocytosis.
6. Hemorrhagic and other eruptions on skin and mucous membrane.
7. Hemorrhage from the kidney.
8. Azotemia and suppression of urine which may be due either to kidney damage or to the hypochloremia secondary to the induced vomiting.

ADVANTAGES IN USING SERUM THERAPY

1. An acceleration of the humoral immunity response with cessation of bacteremia and recovery with the patient having specific passive or active immunity lasting several weeks. It neutralizes the soluble carbohydrate already present in the blood and tissues.

2. Its value, when properly applied, is unquestioned and in early cases has reduced the death rate from pneumonias due to pneumococcus I in adults, to as little as 6 per cent.

DISADVANTAGES IN USING SERUM THERAPY

1. The necessity for type specificity and the dangers of reaction, anaphylactic or thermal, some, though rarely, may be fatal.

2. Serum alone is not beneficial in meningeal invasions.

3. Serum is of less avail in late treated cases.

4. It is expensive and requires skillful intravenous manipulation.

5. The occurrence of serum sickness.

* * *

Which remedy shall the physician choose? In the healing of pneumonia, antibodies are required and no one can tell, at the outset, whether or not all organisms will be lysed, or the patient's immunity mechanism will be adequate. This possible inadequacy is forestalled by serum therapy. There is a group of cases, especially those treated late, not saved by serum alone, which may be saved with added sulfapyridine.

What shall the practitioner do in the light of these observations?

In my opinion, it may be safe for him to give sulfapyridine pending the identification of the pneumococcus, but he should give serum in adequate amount as soon as the type is determined, especially if there is no adequate response as shown by the fall of pulse and temperature at the end of eighteen or twenty-four hours.

Whether it is an advantage to rely on sulfapyridine alone or to give serum in addition to every case, is a question for whose answer there is not, as yet, sufficient data. If physicians were to shift from serum to sulfapyridine or a similar drug at this time when we know so little concerning its proper use and its possible harmful effects, we might, on the one hand, discredit the use of a valuable chemotherapeutic remedy and, on the other hand, we might, by omitting the use of serum, deprive patients of a proven aid.

Only with sufficient evidence before him, after reasoned consideration of what will yield healing most safely, quickly and pleasantly, should the physician choose the remedy.

SULFANILAMIDE*

A Brief Survey of Its Use with Special Reference to Meningitis, Erysipelas, Scarlet Fever, Streptococci Throat Infections and in Urinary Infections

JOHN L. LAW, M.D. (Edin.)

ANN ARBOR, MICHIGAN

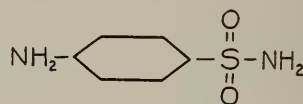
Continued use of Sulfanilamide in many clinics in various parts of the world has in the past three years led to a partial appreciation of the therapeutic value of this drug, its rational administration and its toxic effects. Experimental work by numerous investigators has given us some knowledge of the mode of action, the absorption and excretion and the probable optimal dosage.

The original experimental work of Domagk by which he demonstrated a specific chemotherapeutics for beta hemolytic streptococci, protective and curative in mice, was confirmed by other investigators. Subsequently Proom showed that there was a specific effect for the meningococcus. Long and Bliss have shown that the present status of the mode of action of sulfanilamide is as follows: first, it inhibits multiplication of bacteria, streptococci and meningococci in vitro and vivo; and, second, it probably changes the microorganism in such a way that it favors phagocytosis.

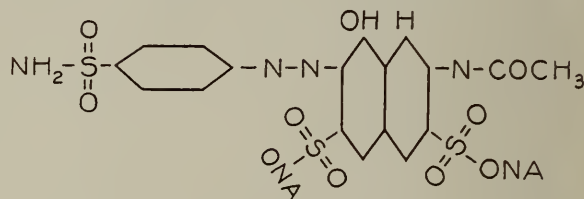
Marshall's work has added considerable knowledge concerning absorption and excretion which is applicable to sound clinical therapy. His discovery of a test for sulfanilamide content in the blood and urine is of value to therapy. He showed: (1) Sulfanilamide is readily absorbed from the gastrointestinal tract within three to five hours; (2) Adequate and equal blood content may be obtained by oral as by subcutaneous or intravenous administration; (3) The blood concentration varies in different individuals on the same unit dose per kilogram body weight; (4) For maintenance of an optimum blood concentration, sulfanilamide should be given in fractional doses every four to six hours because it is quickly absorbed and quickly eliminated; (5) It requires two or three days to establish equilibrium between absorption and excretion, with a known constant dosage; (6) The kidneys excrete almost 100 per cent of the drug. In diseased kidneys excretion is slower, which may serve as a contraindication in some cases.

The preparations in general use in this

country are: (1) Sulfanilamide para-aminobenzene sulfonamide



(2) Pure sulfanilamide powder. (3) Prontosil soluble ("Prontosil") Disodium salt of 4 sulfamido phenyl-2-azo-7-acetyl-amino-1-hydroxy naphthalene-3, 6-disulphonic acid.



For purposes of clarity it should be understood that "prontosil" Winthrop in ampules is not "prontosil" but prontosil soluble, while the drug Prontosil proper is the original red tablet used first in Germany, then in England, for the treatment of puerperal sepsis.

Sulfanilamide is available in white tablet form, 5 or 7½ grains, by Abbott-Lederle-Lilly-Merck-Squibb and Parke Davis. "Prontylin," the trade name of sulfanilamide by Winthrop, is also available in 5 or 7½ grain tablets. The advantage of these oral preparations is cheapness, ease of administration, and the knowledge that sulfanilamide is equally well absorbed by the oral as by subcutaneous or intravenous route if the patient can swallow.

The pure sulfanilamide powder put up by Merck and Winthrop may easily be made into solution for intravenous, subcutaneous, or intraspinal use. To prepare such a solu-

*From the Department of Pediatrics and Infectious Diseases, University of Michigan Medical School. Summary of talks given at Grayling, Alpena, Petoskey, and Traverse City under the auspices of the Michigan Department of Health, the Department of Post Graduate Medicine of the University, the Michigan State Medical Society and the Michigan Branch of the American Academy of Pediatrics.

tion, bring the required amount of physiological saline to a boil, remove from the flame, add .8 grams of sulfanilamide powder to each 100 c.c. of the saline, cool to room temperature and use the same day as prepared.

Toxic Effects

In using sulfanilamide one should be conversant with and keep in mind its possible toxic effects. Expressions of mild toxicity are malaise, lassitude, weakness, nausea, vomiting, diarrhea, headache, dizziness or acidosis (rapid breathing, drowsiness). These expressions seldom necessitate withdrawal except for vomiting or marked acidosis. As acidosis of moderate degree is practically a constant in sulfanilamide therapy an equal amount of sodium bicarbonate (tablet form) should be given with each dose of the drug.

Sulfanilamide fever 102-106 coming on two to seven days after beginning treatment occurs in some cases, and obviates further treatment.

Cyanosis, of frequent occurrence, seldom requires discontinuance. Commonly it becomes less marked or disappears during continued treatment. Cyanosis secondary to sulfanilamide therapy has three explanations. Hartman has shown that it is due to the formation of methemoglobin; Marshall and Walzl suggest a black oxidation product staining the erythrocytes; while Mull and Smith suggest that reduced hemoglobin plays a part.

The morbilliform measles rash at five to seven days, occasionally seen on trunk and extremities, may be accompanied by fever and may indicate discontinuance.

The experimental work of Marshall, giving large doses of sulfanilamide to animals, indicates comparatively low toxicity. Contact with physicians throughout the state who have used the drug shows a good margin of safety. From its use at the University Hospital one is not impressed with its dangers.

The main danger is acute hemolytic anemia, which may be circumvented by a hemoglobin and white blood count determination every second day, especially if large doses are administered. The hemoglobin checks the red cells, while the white blood count signals any tendency to agranulocytosis. Sulphemoglobinemia is rare. Acute

hemolytic anemia or any severe toxic effect may be quickly corrected by discontinuing the drug, using multiple transfusions and forcing fluids.

Administration

Cardinal points in administration are:

1. Produce an effective initial blood concentration, about 10 mg. per cent by giving an adequate initial dose.

2. Maintain effective concentration, 10 mg. per cent, by giving a daily calculated amount divided into four or six hourly fractional doses.

3. Continue a modified dosage after there is clinical improvement, for seven to ten days, to prevent a recrudescence of the infection. There are four qualifying factors for the dosage of sulfanilamide:

1. Severity of the disease. Meningitis requires large doses.

2. Age and weight of the patient. Dosage is based mainly on weight.

3. Blood concentration: Consensus of opinion recommends 10 mg. per cent in severe infections. Further work seems necessary as lower concentrations are frequently curative.

4. Condition of the kidneys. Blood concentration may rise to high levels and toxicity result on very moderate doses if there is kidney disease.

Dosage of Sulfanilamide

Oral Administration.—For severe infections such as meningitis, septicemia and some cases of erysipelas, the following outline may be used:

1. Initial dose— $\frac{3}{4}$ to 1 grain per pound body weight. Administer this amount at one dose.

2. In four to six hours begin fractional doses. The calculated amount required for each twenty-four hour period is $\frac{3}{4}$ to 1 grain per pound body weight. Administer this amount in fractional doses of $\frac{1}{4}$ or $\frac{1}{6}$ at six or four-hour intervals. Continue this dosage until there is clinical improvement.

3. Then reduce the amount to $\frac{1}{2}$ grain per pound body weight per day and continue this amount in fractional doses for several days.

4. Again reduce the calculated twenty-four-hour amount to $\frac{1}{3}$ grain per pound and continue for seven to ten days.

SUGGESTED INITIAL MAXIMUM DOSE IN SEVERE INFECTIONS

1. Adult100 grains
2. Large child40-50 grains
3. Small child or infant.....20-30 grains

Parenteral Administration.—Patients with severe infections who cannot swallow can be treated in the following manner by using sulfanilamide saline solution .8 per cent subcutaneously or intravenously.

1. Initial dose approximately 5 to 7 c.c. per pound body weight per 24 hours for adult, child or infant.

2. As a maintenance dose for two or three days until clinical improvement is evident—use 5 c.c. per pound, giving $\frac{1}{3}$ or $\frac{1}{2}$ of the amount eight or twelve hourly.

3. Then as a maintenance dose 2 to 3 c.c. per pound for seven to ten days or at this juncture switch to oral administration with $\frac{1}{3}$ grain per pound body weight.

Dosage in Mild Infections.—For erysipelas, scarlet fever, streptococcic throat infections (urinary infections, see below).

1. Initial dose $\frac{1}{2}$ grain per pound body weight. Adult, child or infant.

2. Then in four to six hours begin fractional doses and give $\frac{1}{4}$ or $\frac{1}{6}$, at six or four hourly intervals, of the calculated twenty-four-hour amount $\frac{1}{2}$ grain per pound. Continue this for about three days or until there is clinical improvement.

3. Then reduce the amount to about $\frac{1}{3}$ grain per pound per twenty-four hours and continue this amount in fractional doses for seven to ten days.

SUMMARY OF SUGGESTED DOSAGE

	Grains per day per pound	
	Mild Infections	Severe Infections
Infants to 40 pounds	$\frac{1}{2}$ grain	$\frac{3}{4}$ to 1 grain
Children 40-80 pounds	"	"
Older children 80-120 pounds	"	"
Adults over 120 pounds	"	"

Streptococcus Meningitis

Streptococcic meningitis was formerly almost 100 per cent fatal. The following figures show the high mortality:

University of Michigan...	33 cases	1 recovery
John Hopkins	37 cases	no recoveries
University of Cincinnati ..	57 cases	1 recovery
University of Toronto	93 cases	1 recovery

Treatment in this series consisted of either repeated spinal taps, forced spinal drainage, intravenous glucose-saline injections, streptococcus antitoxin, multiple transfusions or a combination of these methods. The results of the treatment with sulfanilamide indicate marked reduction in the mortality.

John Hopkins	23 cases	19 recoveries
University of Cincinnati ...	7 cases	4 recoveries
University of Toronto	9 cases	5 recoveries

In using sulfanilamide for streptococcic meningitis, oral administration is preferable if the patient can swallow. Otherwise the subcutaneous or intravenous route is available. For either route the procedure and dosage previously outlined is utilized. Intraspinal therapy with sulfanilamide solution has and may be used but is not essential, since the concentration of the drug in the spinal fluid is only slightly less than in the blood and body tissues. Important contributory measures of treatment are removal of the focus of infection, usually necessitating mastoidectomy, blood transfusions and an adequate fluid intake by mouth, subcutaneously or intravenously.

Meningococcus Meningitis

Seventy to ninety per cent of the patients recover with the use of meningococcus antiserum or antitoxin. However, these products are very expensive, there is danger of immediate anaphylactic shock, subsequent serum sickness or sensitization to horse serum in the future. In spite of these proven therapeutic measures, sulfanilamide gains favor because it is cheap, easily administered and curative. In experimental meningococcus infections in mice, Proom demonstrated the protective and curative effect of sulfanilamide. Clinically it is curative in man. The following cases are some of those recorded:

John Hopkins	52 cases	44 recoveries
Harvard	5 cases	5 recoveries
Willian, L. J.....	5 cases	5 recoveries

The dosage and method of treatment with sulfanilamide differs in no way from that of streptococcus meningitis. Intraspinal therapy with pure sulfanilamide saline solution .8 per cent is optional but better omitted. Spinal taps for diagnosis and subsequent check of the infection are essential. The combination of intravenous meningococcus antitoxin, 20,000 to 100,000 units,

and the oral administration of sulfanilamide is approved and practiced in a number of clinics.

Erysipelas

Numerous observers at home and abroad report magic results with sulfanilamide in erysipelas. It shortens the duration of the fever, lessens toxemia, checks the spread of the lesion, reduces complications, and there are fewer recurrences. Except in severe cases, a smaller dose is used than in the meningitides. The initial dose is $\frac{1}{2}$ grain per pound body weight and a satisfactory routine for continuing the administration is that previously outlined for mild infections. In older children and adults, sulfanilamide seems to be sufficient. For infants, and in the aged, transfusions are indicated, as the mortality rate is high in these age groups.

Scarlet Fever

The results with sulfanilamide in the treatment of scarlet fever have been disappointing. Troublesome early toxic manifestations like vomiting, high fever, and rash are infrequently benefited by administration of the drug. There is, however, some evidence that septic complications like otitis media, mastoiditis, and adenitis are reduced through its use. With a disease of low mortality the average duration of the illness or the incidence of complications are the criteria. In Peters' series of 150 controlled cases there were in the control group 56 per cent with complications and two deaths, while in the sulfanilamide group 35 per cent had complications with no deaths. Sulfanilamide dosage in cases of average severity is that outlined for mild infections. Peters emphasizes the importance of therapy at the inception of the disease if toxicity is to be benefited. Other therapeutic measures may include anti-scarlet serum, intramuscularly in moderately severe cases, intravenously in the acutely toxic patient, and transfusions.

Throat and Ear Infections

More effective treatment in acute upper respiratory infections with their sequelæ, including tonsillitis and otitis media, is always welcomed. Experience indicates curative effects with sulfanilamide in strep throats or follicular tonsillitis where there are signs of sepsis such as high fever, rapid pulse, vomiting, enlarged tonsillar glands, diarrhea, or enlarged spleen, singly or in combination. It is rarely indicated in mild

throat infections since the results reported are classed as doubtful.

In otitis media of streptococcus origin with continued fever and signs of sepsis, sulfanilamide is beneficial. For throat and ear infections, dosage should be that outlined under mild infections. If the picture is severe, use the dosage outlined for severe infections.

A number of reports testify to the curative value of this drug in cellulitis of the neck and in Ludwig's angina.

Urinary Infections

Sulfanilamide in the treatment of urinary tract infections has been successful in numerous clinics in this country and abroad. There are three distinct advantages: First, it may be employed in acute urinary infections where previously, rest, alkalies and fluids were the only approach. Second, it is effective in an alkaline medium so that sodium citrate or bicarbonate can be used concurrently. Third, it is specific against the bacillus proteus, for which there has been no previous satisfactory medication. Chronic urinary infections also respond to treatment with sulfanilamide except in the case of the streptococcus fecalis; in this instance mandelic acid is effective.

Completely satisfactory results are obtained with relatively small doses. Approximately $\frac{1}{3}$ to $\frac{1}{2}$ grain per pound body weight per twenty-four hours for adult, child or infant. This amount may be divided into three or four doses for a 24-hour period as it does not seem necessary to adhere to four to six hour fractional doses, as the drug is excreted almost 100 per cent in the urine.

Summary and Conclusion

Experimental investigation and clinical application indicates sulfanilamide to be of definite therapeutic value in numerous types of infections. In proper dosage, dangerous toxic manifestations are generally not common or marked. Yet for safe sulfanilamide administration it is necessary to appreciate some factors of its absorption and excretion and the possibilities of toxicity with the signs of such. The drug is not a cure-all and certain definite criteria should be followed in its use.

A practical outline for dosage and administration in the meningitides, erysipelas, scarlet fever, throat and ear infections, and urinary tract infections, is presented.

ACTIVITIES OF THE NATIONAL CANCER INSTITUTE*

CARL VOEGTLIN

Chief National Cancer Institute
United States Public Health Service

WASHINGTON, D. C.

By a proclamation, the President of the United States has set apart the month of April as cancer control month. Our meeting, therefore, at this time is particularly appropriate. You and we of the National Cancer Institute are part of an ever-increasing army of serious minded men and women, who have enlisted in the fight against cancer. I am sure you will agree that this pernicious enemy can only be conquered by a concerted and sustained attack by all the available weapons at our command.

We do know that about 140,000 of our people die of cancer each year. Statisticians tell us that unless we can improve our methods of control even more people will succumb to cancer in future years, because of the increasing longevity resulting from a better control of other diseases.

But fortunately this picture is by no means as black as it appears to be. As you know, the American College of Surgeons has records of more than 30,000 cancer patients who have remained cured for a five-year period. Furthermore, the American Society for the Control of Cancer and its field army are doing splendid work in promoting early diagnosis and proper treatment of cancer. Many medical schools, including, I am glad to say, your own college of medicine of Wayne University, are improving instruction relating to cancer. Diagnostic service and treatment facilities are being improved in many clinics throughout the country. In short, cancer is being fought on a broad front.

A great impetus was given to the study and control of cancer by the establishment, through an Act of Congress, of the National Cancer Institute of the United States Public Health Service. The Institute, in co-operation with the National Advisory Cancer Council, which is composed of distinguished men under the chairmanship of Surgeon General Parran, has taken the necessary steps to comply with the several provisions of the law. Time does not permit me to go into details concerning the accomplishments to date. All I can do is to give you a brief survey.

Recognizing the urgent need for an increased number of experts in the diagnosis and treatment of cancer, a committee, under

Dr. Ewing as chairman, has compiled a list of cancer clinics suitable for training centers. So far twenty-two physicians have received special training at Government expense in radiology, tumor pathology and surgery. Having completed their training, these physicians will practice their specialty in different parts of the country and other trainees will be appointed in their places.

Complying with the law, there has been purchased 9½ grams of radium for loans to qualified cancer treatment centers. This radium has been placed in suitable containers. The exact radioactivity of the contents of each of these containers is being determined by the National Bureau of Standards, before the radium is released. The purpose of the loans is to provide radium to clinics which cannot afford to purchase it for their essential needs in the treatment of cancer.

In order to provide the National Cancer Institute with facilities for the clinical study of cancer, a cancer clinic is being organized in the United States Marine Hospital at Baltimore, Maryland. The regular beneficiaries of the Public Health Service east of the Mississippi River will be admitted to this clinic for treatment and study.

The law furthermore provides for coöperation with State health agencies. Six states already have enacted cancer control programs. The institute has reviewed these State laws and has formulated a model law which will be presented for consideration at the next meeting of the State and Territorial Health Officers with the Surgeon General.

Funds provided by the Institute to the Division of Public Health Methods have been used for the following statistical studies: (1) Mortality from cancer, including

*Address presented at the meeting of the American Association for the Study of Neoplastic Diseases, Detroit, Michigan, April 7, 1939.

regional differences and trends of death rates during the last 30 years; (2) effectiveness of different methods of cancer therapy; (3) cost of adequate cancer therapy; and (4) epidemiological studies.

All the activities so far mentioned are concerned with what may be broadly called cancer control, that is to say, the application of existing knowledge in the fight against neoplastic diseases. You will agree that a great deal remains to be done along these lines by a harmonious collaboration of private, State and federal agencies.

Now it has been estimated that the ideal application of our present cancer control methods would result in a reduction of about 25 per cent in the present cancer mortality rate. What can be done about the remaining more than 100,000 fatal cases a year? There is only one answer: the acquisition of new knowledge through research. With the passage of the National Cancer Institute Act the Federal Government for the first time has recognized scientific research relating to cancer as an important legal obligation. I shall confine the remainder of my time to a brief discussion of part of the fundamental research activities of the Institute.

The first thing that is usually done in attacking scientific problems is to ascertain whatever knowledge is already available. This clarifies the problems and suggests lines for future work. Useful reviews covering different fields of cancer research have appeared from time to time. But it remained for a committee of distinguished scientists, appointed by Dr. Parran, to formulate and clarify the fundamental aspects of the complex cancer problem. This report was published in Public Health Reports on the second of December of last year. I can recommend it highly for your information.

Let me just mention some of the salient conclusions: The very exhaustive study of mammalian cancer has disclosed a complete lack of evidence of its infectious nature. It has been definitely shown that many chemicals, animal parasites, bacteria, x-rays, radium and other sources of short wave energy may incite cancer in susceptible animals, but these agents play no part in the continuation of the malignant process. The degree of potentiality for malignancy varies for each tissue or cell type and is determined largely, if not entirely, by hereditary factors. The report recommends systematic investigation of the environmental and hereditary

factors with emphasis, first, on the factors which may have some connection with the naturally occurring human cancers; and, second, on the explanation of how normal cells are transformed into cancer cells. Present evidence indicates furthermore that malignancy is the result of a fundamental change in cell physiology of a fixed character and transmitted to the daughter cells. It gives evidence of being a somatic mutation. The report points out that we know very little why cancer cells have such capacity for unlimited and uncontrolled growth. This is the core of the scientific cancer problem and work along this line, the committee suggests, should be encouraged.

It was fortunate that the Public Health Service for some years preceding the passage of the National Cancer Institute Act had supported cancer research. One group was working at the National Institute of Health, of which the National Cancer Institute is now an integral part. The other group worked first at the Harvard Medical School and more recently the Harvard authorities have provided facilities in the Willard Gibbs Memorial Laboratory at Cambridge, Massachusetts.

It is not generally recognized that cancer research requires years of training and experience and that there is a scarcity of investigators who, possessing a thorough training in one of the fundamental sciences, have also acquired a sufficient knowledge relating to cancer. Therefore, the present personnel will form a good nucleus for the new Institute.* In addition there have been appointed 15 research fellows. Moreover, the Surgeon General, upon recommendation of the National Advisory Cancer Council, has made grants-in-aid for cancer research to various universities and other private institutions, totaling over 100,000 dollars.

I have now come to the point where I can give you an outline of some of our research.

There is no more striking example of the benefits to be derived by the concerted efforts of the various sciences in cancer research than the discovery of pure chemicals as cancer-producing agents. In 1775 Percival Pott, an English physician, described the frequent occurrence of cancer of the

*The National Cancer Institute will be housed in a well-equipped building which is now being erected at Bethesda, Maryland, on land donated to the Public Health Service. This building will be ready for occupancy in September.

scrotum in chimney sweeps. In 1915 Yama-giwa and Ichikawa, in Japan, reported the first successful production of tar cancer in rabbits following prolonged tar painting of the skin. This important observation at once raised the question as to whether this cancer was caused by the presence in tar of specific chemicals. As you know, the work of Kennaway, Cook and collaborators in England, in 1933, led to the isolation of 3,4 benzpyrene which is now considered as the carcinogenic agent of coal tar. Three years previously, work in the same laboratory had led to the discovery of the cancer-producing properties of a synthetic chemical—dibenz-anthracene. These pioneer discoveries opened up a large field to experimental investigation. Soon afterwards Doctor Andervont and Shear of our group working at Harvard initiated work in chemical carcinogenesis with particular reference to the conditions which are of importance in the production of chemically induced tumors. Whereas the English scientists had used mixed breeds of mice for their work it was soon shown that the use of highly inbred animals had many advantages. Thus it was found that the cancers produced by active chemicals in a highly inbred mouse strain could be easily transplanted to normal mice of the same strain, whereas transplants to other mouse strains failed to grow. This is additional evidence indicating that the cancer cells arising in an animal are modified cells, adapted for survival only in animals with the same hereditary constitution. Moreover, comprehensive studies showed that the production of these cancers requires a certain minimum dose of the chemical. For instance, it was recently shown that the lowest effective dosage for the production of sarcoma following the subcutaneous insertion of cholesterol pellets containing dibenzanthracene is about 0.1 of a milligram for strain A mice. These pellets are prepared by melting together a definite amount of the carcinogenic agent with pure cholesterol. These tiny pellets, when inserted aseptically into the internal organs, produce cancers in the immediate neighborhood of the pellets. In this way it was even possible to produce tumors of the brain in mice. On cross-section the pellet was found in the center of the tumor. Histological studies of these tumors indicate that they belong to the glioma types seen in man.

Tumors of the spleen, kidney and lung have also been produced by injection of car-

cinogenic chemicals into these organs. Systematic studies are under way to elucidate the precancerous changes, with particular reference as to whether or not the production of these chemical tumors is preceded by local "chronic irritation."

Another use to which these chemicals have been put concerns the susceptibility of different inbred strains of mice. Until recently it was believed that all mice were about equally susceptible to chemically induced tumors. But the work of Doctor Andervont has revealed a striking difference. In one strain, for instance, 0.8 mg. of dibenzanthracene produced tumors in every mouse within twenty-eight weeks after injection, whereas in another strain no tumor appeared until forty weeks after injection. With the more potent agents tumors have been produced in as short a time as four to six weeks following injection. A comprehensive study of the response of eight strains of highly inbred mice to different types of tumor growth revealed that the strains varied considerably in their susceptibility to spontaneous mammary and lung tumors, to transplantable tumors, and to chemically induced subcutaneous and lung tumors. None of the mouse strains was susceptible or resistant to tumor growth in general. These results clearly demonstrate the importance of heredity in the etiology of these tumors in mice.

I have already mentioned that tumors can be produced in different tissues of mice if active carcinogenic chemicals are injected into these tissues. The most probable explanation of the origin of such tumors is that the chemical acts upon certain normal cells in the immediate neighborhood of the deposit of the chemical. Interesting observations made in our laboratories have shown that it is possible to produce tumors in tissues far removed from the site of injection. Thus Doctor Andervont obtained primary lung tumors in mice following the subcutaneous injection of dibenzanthracene. Many of these tumors appeared without the occurrence of subcutaneous tumors. The particular strain of mice used has a high incidence of spontaneous lung tumors which appear relatively late in life, whereas the induced lung tumors occur much earlier. The most plausible explanation of these findings is that the chemical is continuously being absorbed and carried to the lung, where it greatly accelerates the naturally occurring

carcinogenic process. This interpretation is supported by the fact that there is no apparent difference in the morphology of the chemically induced and the spontaneous lung tumors.

Similar observations have shown that liver tumors result in certain mouse strains from the subcutaneous injection of dibenzanthracene, orthoaminotoluene or 2-aminoanthracene; here also without the appearance of subcutaneous tumors. We have insufficient data on the quantity of these chemicals which reach the liver tissue, but this is probably very small. Much further work should be done on this selective action of these cancer-producing agents on specific tissues.

In view of the considerable mortality from cancer of the lung the above observations now serve as a basis for a more comprehensive investigation. It has been suggested that this disease may be due in part to the inhalation of dust (smoke, soot, road tar) containing cancer-producing chemicals. We have collected large quantities of atmospheric city dust for chemical fractionation in order to determine whether or not such dust is carcinogenic. Other experiments are under way to determine whether mice, kept from birth in a specially designed chamber providing practically dust-free air, are less susceptible to lung tumors. This work may suggest methods of prevention of this type of cancer.

Another question which has been investigated is whether the presence of dibenzanthracene is necessary not only for the induction of the tumors, but also for their continued growth. Doctors Shear and Lorenz injected mice subcutaneously with dibenzanthracene in lard. This chemical has a characteristic ultraviolet absorption spectrum. The large tumors obtained after 6 to 9 months were therefore extracted with suitable organic solvents and the purified extracts were examined spectroscopically for the presence of dibenzanthracene. Appreciable amounts were found. However, if these tumors were transplanted five or six times to normal mice, the resulting tumors on extraction showed no dibenzanthracene. Since the analytical method can detect about 4 one hundred thousands of a milligram per cubic centimeter, it is evident that the chemical is only required for the induction of the tumors but not for their continuous proliferation.

Soon after the discovery of the first cancer-producing chemicals the English workers under the leadership of Kennaway and Cook became interested in the question of the relation between chemical structure and carcinogenic action. In 1934 our group working at Harvard obtained the interest of Professor Fieser in a joint investigation of this problem. During the next 4 years Dr. Fieser and his coworkers synthesized a large number of polycyclic hydrocarbons and derivatives which were examined in our laboratory for carcinogenic potency by Dr. Shear. Additional compounds were obtained from other chemical laboratories. It would lead too far here to review the details of this comprehensive and fruitful investigation.

The following conclusions may be drawn from these studies:

1. Even minor modifications in the chemical structure of an active compound often result in a complete loss of cancer-producing properties.

2. Polycyclic compounds of relatively simple structure have been discovered which still are carcinogenic.

3. The five carbon ring, characteristic of cholesterol, bile acids, sex hormones and other physiologically active compounds, is not a prerequisite for carcinogenic action.

4. This synthetic work has furnished the biologist with a great variety of pure carcinogenic agents differing widely in their rapidity of tumor production.

What is now most urgently needed is biochemical work directed toward the hypothetical chemicals which are presumably responsible for the production of the great variety of spontaneous cancers in man and in animals. Encouraging observations made along this line are Lacassagne's experimental production of mammary cancer in male mice by repeated large doses of female sex hormone, and Roffo's production of tumors by oxidation products of cholesterol. As you know, cholesterol is a normal constituent of cells.

Dr. Earle and I have been engaged for some time in the study of the mechanism of action of one of the most rapid acting synthetic compounds, methylcholanthrene, on cultures of normal mouse and rat connective tissue. Our results to date indicate that under well controlled conditions methylcholanthrene tends to inhibit cell proliferation. No evidence of stimulation could be

secured. Some of the cultures after exposure to methylcholanthrene for about three months were then carried for another three months without the further addition of methylcholanthrene. During this time the cultures were rinsed with saline and the medium was renewed about every three days, so that there is every reason to believe that all but infinitesimal if any traces of methylcholanthrene must have been removed from the cultures some time ago. These cultures have assumed quite a striking difference in architecture, as compared with control cultures of normal connective tissue. The results to date suggest that we are dealing with what appears to be a new variety of cells. This interesting work will be pursued further in order to determine whether cancer cells can be obtained outside the body by the prolonged action of methylcholanthrene.

Before leaving the discussion concerning the causative factors involved in carcinogenesis I must briefly refer to a remarkable observation made in Dr. Little's laboratory. It was shown that in certain inbred strains of mice the mother's milk is an important factor in the susceptibility of the young to breast cancer. For instance, if immediately after birth young mice of a strain with a normally high incidence of breast cancer are nursed by mothers of a mouse strain with a very low breast cancer incidence, then the incidence of breast cancer in the foster nursed mice is greatly reduced. Dr. Bittner of Dr. Little's laboratory has been appointed a research fellow and has received a grant-in-aid for the further investigation of this problem. Work is under way by our groups in Washington and at Harvard aiming to throw some light on the nature of this mysterious "breast cancer producing influence" in milk.

One of our research fellows is taking part in studies at Duke University on the chemical, physical and biological properties of the Shope papilloma virus of cottontail rabbits. This virus is carcinogenic for rabbits under certain conditions. Another research fellow has begun work in Washington on the mode of action of sunlight in the causation of skin cancer.

Biology of the Cancer Cell

The remarkable capacity of the cancer cell for apparently unlimited proliferation is still, as has been stated, the fundamental

unsolved problem in cancer. We appreciated this fact at the time when cancer research was initiated by the Public Health Service. Suppose we knew the explanation, would it not be reasonable to expect that this knowledge would suggest rational methods for controlling malignant growth? The problem of cancerous growth is but a part of the larger problem of the physiology and biochemistry of cell growth in general. The word growth is used in this connection to include all the phenomena associated with the increase in size, the division and the differentiation of cells. It is obvious that the ultimate understanding of the characteristic growth of cancer cells will depend in a large measure on a much better understanding of the growth of normal cells. It is my belief that biochemical methods offer the best chance for progress in this difficult field. So far there has not been discovered a single qualitative difference in chemical composition between normal and cancer cells. On the contrary, such highly specialized chemical functions as the production of specific hormones are retained by malignant tumors derived from hormone-producing glands. Whatever chemical differences do exist are of a quantitative nature. Years ago Warburg thought he had found the cause of the excessive proliferation of cancer cells in their greater ability to ferment glucose to lactic acid, an energy-yielding reaction which would render cancer cells more independent of a constant supply of oxygen. But later research by Warburg, Murphy and other workers has thrown some doubt on the validity of this explanation.

Brief mention can now be made of some of our work on the relation of proteins to cancerous growth. Classical nutrition experiments have shown that growth of young animals, and therefore cell proliferation, does not occur unless the diet contains an adequate amount of all the so-called indispensable amino-acids. These building stones of protein apparently cannot be synthesized by the animal and must be furnished with the diet. It was of interest, therefore, to ascertain whether or not the growth of malignant tumors could also be inhibited by diets deficient in certain indispensable amino-acids. The special diets were fed to female mice with spontaneous breast cancers. The growth-promoting properties of each diet used were first carefully studied on young normal mice. We found that two different

diets, deficient in the amino-acid lysine, caused a striking inhibition in the growth of the tumors. Within a few days after the diet was supplemented with lysine the tumors began to grow very rapidly. Similar experiments with a diet deficient in the amino-acid tryptophane again showed inhibited malignant growth and the tumors again began to grow on the addition of tryptophane to the diet.

Further experiments showed that a diet containing 17 per cent of dried whole milk powder as the sole source of protein was inadequate for the growth of young mice and for tumor growth. However, as soon as the diet was supplemented by the amino-acid cystine, or when the mice received daily injections of glutathione, the tumors began to grow rapidly. These results were quite unexpected. They are in contradiction to the prevailing idea that the tumor grows at the expense of the normal tissues. It should be added that the cancer mice maintained their body weight on the deficient diets and appeared to be in good condition for prolonged periods, yet the tumors failed to grow. In order to avoid any misinterpretation of these results it should be emphasized that the clinical use of such results is altogether premature.

One of our research fellows is collaborating with Dr. Murphy at the Rockefeller Institute in the important investigation of the growth stimulators and inhibitors which appear to control cell proliferation. It is significant that repeated intraperitoneal injections of extracts from embryo skin or placenta into mice with spontaneous breast cancer has arrested tumor growth in about 70 per cent of the treated animals, and in 22 per cent the tumors actually regressed. These changes were accompanied by a marked reduction or absence of mitotic figures in the tumor tissue. More recently they found a potent inhibiting fraction in the mammary tissue of cows and rabbits in the pre-lactating and early lactating stage.

Another line of work supported by the National Cancer Institute concerns the complex problem of the intermediary metabolism of cancerous tissues. It is reasonable to assume that the behavior of cancer cells may be the expression of a characteristic metabolism. Dr. Burk has been assigned to the Cornell Department of Biochemistry to undertake a systematic investigation with particular reference to the Pasteur-Meyerhof

reaction. Use will also be made of the recently discovered isotopes of certain atoms. These will be incorporated into lactic acid and other naturally occurring substances for the purpose of following their fate in normal and malignant tissues. This again illustrates how advance in the fundamental sciences, by providing new methods, promotes fundamental cancer research.

Therapeutic Studies

Present day cancer therapy has its limitations. The search for new methods, therefore, is an obligation which scientists must assume. The newer developments in atomic physics and the construction of the cyclotron have furnished such an opportunity. A grant-in-aid was therefore given to Professor Lawrence of the University of California, who is a pioneer in this particular field of physics. Professor Lawrence and a staff of physicists, biologists and clinicians are carrying out a systematic study of the biological action of neutrons and artificial radioactive chemicals. It is hoped that this work will in time provide results of practical value in the treatment of cancer.

One of our research fellows has initiated a comparative study of the biological action of neutrons and x-rays in collaboration with Dr. Tuve of the Carnegie Institute of Washington. It is obvious that much laboratory work will have to be done before neutrons could ever be used clinically on a sound basis.

The Institute is also engaged in the experimental study of the action of certain bacterial toxins on tumors. This work is based on older clinical observations indicating that certain intercurrent bacterial infections in some instances seem to have caused regression of malignant tumors. Attempts have therefore been made to isolate highly active fractions from bacterial filtrates. Such fractions have been isolated from filtrates of *B. prodigiosus* grown on a synthetic medium. Injected into mice with rapidly growing tumors, these fractions cause hemorrhages in and regression of the tumors in many of the treated animals. This action is apparently due to rupture of the fragile, newly formed capillaries in rapidly growing tumors, followed by the death of the malignant cells which have been deprived of their blood supply. This explanation is supported by recent observations. It was shown that the injection of suitable

doses of vitamin C, previous to the injection of the bacterial filtrate fraction, is not followed by any apparent effect on the tumors. This line of investigation deserves further study.

The greatest need still is a treatment, whether physical or chemical, with a more selective action upon cancer cells. We may perhaps look forward to the day when there will be available chemicals which will be as efficient in the treatment of cancer as sulfanilamide and its derivatives are in the control of certain infectious diseases.

I hope that I have shown you in this short talk that progress is being made in this fight against cancer. It is a great challenge to scientific workers, the medical profession, public health officials, as well as the large number of interested laymen. Wishful thinking on the one hand and pessimism on the other will be futile. What is needed is ingenuity, hard work, and, above all, sustained effort for many years. Nor can the fight be won without continued financial support commensurate with the difficulties of the various problems.

MECKEL'S DIVERTICULUM CONTAINING GASTRIC TISSUE AS CAUSE OF INTUSSUSCEPTION

Résumé of Literature and Report of a Case

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Cases of intussusception involving Meckel's diverticulum appear in the literature with some frequency, but cases in which the diverticula contain heterotopic gastric tissue and are very definitely the starting point of the intussusception are still sufficiently rare to warrant reporting.

A search of the literature immediately impresses one with the marked discrepancy between actual frequency of these diverticula and the relatively few cases encountered in an ordinary surgical practice. This discrepancy becomes still more significant when we keep in mind that an unusually high percentage of diverticula sooner or later undergo pathological change. Hence, while not being definitely manifested in this case, I believe that it might be of interest here briefly to review the other—and often more important—pathological changes to which this embryonic vestige is heir.

The relatively recent advances have shown that this appendage is very prone to harbor active heterotopic gastric tissue. This aberrant tissue is capable of manifesting many of the disease processes peculiar to its gastric counterpart, thus making this résumé more pertinent.

Meckel's diverticulum is the remains of the Vitelline duct, which normally becomes obliterated very early in fetal life. It was first observed by Lavater in 1761, and also in 1769 by Morgagni who did not believe it was related to the Vitelline duct. Later he worked out its development and showed its relation to the causation of disease. It was not until later in the nineteenth century that Meckel gave his classic description and by whose name it has since been known.

It always occurs on the terminal ileum, about two and a half or three feet from the ileocecal valve and occupies the anti-mesenteric border of the gut. It may range in size from a small sacculation to a full-formed, fecal-containing structure twenty or forty centimeters in length; or it may be represented only by a thin ribbon or hair-like structure extending from the ileum to the inner aspect of the umbilicus. When this condition exists, volvulus around it is possible. It may lie free in the abdomen, may be bifurcated, conical, globular, or may be turned back upon itself and lie parallel with, and bound to, the ileum. Thus, giving the appearance of a duplication of that latter structure.

As to incidence, it occurs in about 3 per cent of all individuals being about four times as frequent in males; some writers place this ratio as high as ten to one. Christie, after reviewing sixty-three cases, states that other congenital malformations such as hare-lip, club feet, web toes and

fingers, or deformed umbilical scars are present in about 33 per cent of the cases.

Searching the literature in an attempt to get some average of the various incidence figures given is extremely stimulating and is the prime factor in leading me to believe that a re-emphasis of its importance is timely. The pathologist's figures are always much higher than the surgeons for obvious reasons. Balfour, in 10,000 operations, observed fifteen Meckel's diverticula; while Turner, of Guys Hospital, in doing 10,360, autopsies observed eighty-one; over five times as many. In 1930, Baker found four Meckel's diverticula in 150 laparotomies; while McGlannon saw only three in 1400 operations. Such marked discrepancies are difficult to reconcile, but it seems to be quite uniformly accepted that 2 to 3 per cent is a reliable average. Thus, it becomes apparent that any surgeon performing only 100 laparotomies a year may encounter two or three Meckel's diverticula and be forced to deal with pathologic lesions therein. This frequency lifts the condition from the realm of extreme rarities when we consider that the same surgeon may not do a single gastric resection in the same period of time. This would also seem to argue very strongly that in any case where the pathologic change seems inadequate to justify the pre-operative diagnosis a painstaking search of the terminal ileum would be indicated, especially in a male in the first two decades of life.

Pathological processes in this diverticulum all call for surgical treatment, are about four in number, and are as follows:

1. *Catarrhal inflammation*.—This is comparable to the catarrhal appendix, is usually recurrent and often diagnosed as an atypical appendicitis. It tends to come on during activity in contra-distention to appendicitis, is usually accompanied by a small amount of free fluid in the abdomen, and may become gangrenous. The pain is lower and nearer the mid-line than in appendicitis. In older children or young adults the mortality is about forty per cent, while acute inflammation in children under one year is practically one hundred per cent fatal.

2. *Ulceration*.—This may be with or without perforation and usually has its beginning in one of the very frequent islands of heterotopic gastric tissue. These islands show active chief and acid cells. The symptoms of ulceration without perforation

are those of any acute abdominal diverticulitis. Perforation, which occurs in about twenty per cent of the cases, is as dramatic as elsewhere in the gastro-intestinal tract and much more dangerous than in the stomach or duodenum owing to the bacterial content of the ileum. The ulcers are the typical peptic type and carry a mortality of about forty-three per cent even when operated early.

3. *Hemorrhage*.—This is much more common than ordinarily supposed and usually arises in a peptic ulcer of heterotopic gastric or duodenal tissue; though it may result from other diverticular inclusions such as myoma, adenoma, polyp, or aberrant pancreatic tissue.

Schullinger and Stout report a case of hemorrhage in a sixteen-year-old boy from an adenoma composed of gastric and duodenal glands. The hemorrhage may be acute or chronic, occult or massive. The blood, per rectum is bright red and unmixed with the stool.

4. *Obstruction*.—One of the most important complications due to its relative frequency and high mortality of sixty per cent. It may occur with or without intussusception and may be caused by volvulus of gut around a vestigial remnant fastened to the umbilicus. There may also be torsion of the diverticulum on its own long axis; or obstruction may result from kinking of the bowel itself in old diverticular inflammatory adhesion or may be caused by the diverticulum invaginating into the gut with or without subsequent intussusception of the ileum into itself. I believe that these two latter conditions are much more likely to occur when there is an inflammatory condition in progress in the diverticulum. Then there would be irritation with resultant hyperperistalsis which obviously can proceed in only one direction. Hence, it seems logical that there would be a strong tendency to invaginate into the ileum.

While the pathological report does not wholly substantiate this view, the condition of the bowel and the concave appearance of the lesion at the very tip of the diverticulum leads me to believe that this was exactly the genesis of the following case:

E. D., a young, white, American boy, aged fourteen, entered the office half carried and half dragged between his mother and father. His back was bent and his legs were drawn up in severe abdominal pain.

He had had an appendectomy one year previously

after which general peritonitis developed followed by complete intestinal obstruction. An enterostomy through the left rectus was done to relieve this. Convalescence thereafter was stormy but recovery was complete.

His parents stated that he had been perfectly well and at play that day when, two hours previous to my seeing him, he had been seized suddenly with severe, cramp-like abdominal pains. These had been constant since onset and of increasing severity, though they had noted that there were very definite wave-like augmentations of the pain. There had been no vomiting or bowel movement. No cold, clammy sweat or other evidence of shock or hemorrhage.

Physical examination revealed a fairly well-nourished boy of normal development in very severe, acute, paroxysmal abdominal pain. His temperature was normal, skin soft and warm, no evidence of shock. Head, ears, eyes, and neck were not abnormal. The chest was symmetrical. The heart was rapid but of good tone and rhythm. It was impossible to auscultate the chest. Though the patient could not be made to lie prone, we did succeed in getting him on the examining table where the abdomen showed an old McBurney's scar and a puckered left rectus scar about one inch above the umbilicus.

Slightly below this old enterostomy scar and inclining more to the mid-line could be felt a very definite, immobile, extremely tender, irregular mass which appeared to be continuous with the lower end of the scar. The extreme pain and motility of the patient along with the marked defense muscular rigidity of the abdomen made further examination impossible.

Diagnosis of acute intestinal obstruction was made, probably due to a volvulus of gut adherent to underside of old enterostomy scar.

A small left rectus incision was made just below the enterostomy scar so that it could be extended upward to include it if necessary. As soon as the abdomen was opened it became apparent that the preoperative diagnosis was at least fifty per cent wrong, for the old enterostomy was entirely normal. Immediately below this, however, and slightly more toward the mid-line, was a mass of tense, dusky, crescent-shaped bowel which, when lifted out of the abdomen, proved to be ileum which had invaginated into itself for a distance of nearly one foot. The intussusciens was dark, tense, edematous, swollen, and covered with hundreds of petechial hemorrhages.

Hot packs applied to the bowel tended to decrease the swelling and the intussusception was then reduced by *gentle* traction on the intussusceptum while an enterostomy clamp was inched along the ileum, at right angles to it, just distal to the head of the intussusception. Thus the enterostomy clamp retained each increment gained and the mass was finally reduced just as one would force a sausage from its case by pressing at intervals immediately behind the emerging material. This reduction consumed at least twenty minutes.

As reduction became complete a Meckel's diverticulum was seen for the first time. This was not merely carried to the ileum but was invaginated into itself, thus indicating that the process had been primary in the diverticulum. This invagination continued to its very tip, where there was a firmer, more indurated lesion slightly smaller than a dime. This area was also dishd with the convexity toward the ileo-diverticular junction.

The distal deformity of the diverticulum was not amenable to complete reduction even outside the body. This definitely convinced me that it had been the original starting point of the entire process.

After reduction, the diverticulum lay free in the abdomen. It was about five inches long, of the same caliber as the ileum and had no mesentery.

The gut was viable, so after resection of the diverticulum the ileum was dropped back and the abdomen closed without drainage. Convalescence was uneventful and the patient left the hospital on the eleventh day.

The pathologic report was as follows: Specimen is a diverticulum eight centimeters long, edematous and swollen. Sections of the diverticulum show areas of gastric glands and some of these areas are the seat of ulceration. There are also areas of hemorrhagic infarctions and inflammation. The diffuseness of the edema, inflammatory reaction, and hemorrhage are in favor of a disturbance of blood supply as a cause of the pathological changes. The changes observed in this diverticulum are most often associated with torsion or embolism of the venous blood supply.

Summary

1. A case of Meckel's diverticulum containing aberrant gastric tissue is reported.
2. An intussusception, with obstruction, resulting from this diverticulum is reported.
3. A short resume of the various pathological possibilities of Meckel's diverticulum is given, with emphasis on the newer histological understanding of aberrant tissue so frequently found in it.
4. A theory as to the causation and mechanics of an intussusception of Meckel's diverticulum is advanced.
5. An attempt to emphasize the relative importance and frequency of Meckel's diverticulum, rather than its generally supposed rarity, is made.

* * *

I wish to express my sincere thanks to Dr. V. J. Blanchette of Custer, Michigan, for affording me the opportunity of seeing and operating on this patient.

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STAFF CONFERENCE
DEPARTMENT OF INTERNAL MEDICINE
UNIVERSITY OF MICHIGAN

O. C., No. 434034, female, white, aged forty, was admitted November 14, 1938. Thoracic Surgery.

History.—Admitted to Howell Sanatorium in March, 1938, following six months of productive cough, fatigue, and malaise. Shortly prior to admission there the sputum was found positive for tubercle bacilli. A chest radiograph showed a contracted right upper lobe with cavitation. There had been no known contact with tuberculosis. A right pneumothorax was induced in April, 1938; that was unsuccessful in collapsing the lesion and was abandoned in August following a right temporary phrenic interruption.

The patient was transferred to the University Hospital in November, 1938, for thoracoplasty. Family history, past medical history, and the systemic history were essentially non-contributory to an understanding of the present illness.

First stage thoracoplasty was done November 28, 1938.

Second stage thoracoplasty was done December 20, 1938.

Third stage thoracoplasty was done February 9, 1939.

On December 24 the patient had a rather sudden attack of generalized cramping abdominal pain, with tenderness in the right lower quadrant. Diarrhea and nausea ensued. These symptoms were controlled somewhat by symptomatic medication. In the middle of March of 1939 haliver oil caps iii daily with cevitic acid and cerelexin were started. The abdominal pain and the diarrhea have abated somewhat but are still present and the patient occasionally requires paregoric. Weight on admission was 113 pounds and at present is 90 pounds. Several transfusions have been given.

Laboratory data.—The urine has been negative save for a few white cells. The blood showed constant leukocytosis to 14,000 and anemia. Agglutinations negative. The blood ascorbic acid was .46 per 100 c.c. on March 23, 1939; 1.6 on April 11, 1939. The sputum was consistently positive for tubercle bacilli at the Howell Sanatorium. It was positive here on direct smear until February and positive to concentrate in March. The stools were positive for occult blood. X-ray on February 1, 1939, showed tuberculous ileo-colitis involving the cecum, the ascending colon and hepatic flexure.

Discussion

DR. JOHN D. ADCOCK: I should like to emphasize that this patient presents the typical clinical picture that we associate with advanced phthisis. There is no clubbing of the fingers. She shows the effect of considerable weight loss. The abdomen is flat with generalized tenderness, which has at times been localized to the right lower quadrant. No abdominal mass has ever been palpated. Dr. Robinson is going to tell us about her dietary history.

DR. WILLIAM D. ROBINSON: The dietary history indicated that she had eaten a well balanced diet prior to her illness but while at Howell her appetite had become poor and she became "fussy" about her food. For about two and one-half months, shortly after coming here, she has noted that orange

juice and tomato juice would cause burning in the stomach. She continued to take orange juice in smaller amounts. During the time she was having the various surgical procedures, she had taken orange juice for several days after each operative procedure. A history was also obtained of spells of diarrhea lasting three to four days for the past twelve years, coming on at intervals of one to two months. At various times she had a dull pain in the epigastrium which was not definitely related to food.

DR. CYRUS C. STURGIS: Dr. Adcock, have you some data regarding the literature?

DR. ADCOCK: The very extensive literature on intestinal tuberculosis has been reviewed by Brown and Sampson in an excellent monograph published in 1930. These authors have developed a technic of radiographic examination for the demonstration of the presence of intestinal tuberculosis. Using this technic in the examination of 5,542 patients with pulmonary tuberculosis, they found 26 per cent with intestinal involvement. In defense of the accuracy of their method, they present postmortem evidence. Of 93 cases in which they had made a radiographic diagnosis of intestinal involvement, only three were negative at necropsy. Conversely, of 88 cases radiographically negative, only one showed intestinal lesions at necropsy.

Granet studied the incidence of intestinal tuberculosis in 2,086 patients with pulmonary tuberculosis. He used a technic similar to that described by Brown and Sampson. There was evidence of intestinal lesions in 744 or 35 per cent of his group. He explains this unusually high incidence as due to the fact that the patients were mostly of the indigent class and a large proportion had far advanced pulmonary disease. Of those showing evidence of intestinal disease, 95 per cent had a positive sputum. It is interesting that only 26 per cent of those with intestinal tuberculosis had symptoms referable to it. In his autopsy material the lesions involved the terminal ileum and cecum in 90 per cent of the cases. Granet quotes a recent article by Williams in which the presence of intestinal tuberculosis was correlated with the stage of pulmonary disease. Intestinal involvement was demonstrated in 2 per cent of the cases with minimal pulmonary tuberculosis, in 6 per cent of those with moderately advanced disease, and in 26 per cent of those with far advanced disease.

Brock and Perry have a clinical impression that the incidence of the complication was decreasing. They studied cases in their sanatorium from 1927 to 1935, dividing the study into two periods. The incidence was lower from 1930 to 1935 than from 1927 to 1930.

McConkey published an article in 1930 demon-

strating the usefulness of cod liver oil and tomato juice in treatment. He studied 128 patients with proven intestinal tuberculosis whom he divided into three groups. Twenty-eight of this group received symptomatic treatment alone. Seventy-one per cent of these were dead; and 14 per cent were known to be alive at the time of his report. The second group containing fifty patients were given ultra violet light therapy. Twenty-four per cent of these were dead and 42 per cent alive, with the remainder untraced. The last fifty patients received cod liver oil and tomato juice supplements to their diet. Ten per cent of these were dead and 86 per cent were known to be alive at the time of reporting. There were some patients in each group who could not be traced. Another group of patients were studied and the results tended to support McConkey's feeling that cod liver oil and tomato juice are valuable as a prophylactic measure.

McConkey and Smith were able to produce ulcers in the intestinal tract of guinea pigs by feeding them tuberculous sputum together with diets low in vitamins A, B and C. They claim that the addition of small amounts of tomato juice to the diet effectively prevented the development of the intestinal ulcers. Cod liver oil alone had no such beneficial effect, nor did it enhance the effect of the tomato juice when added to it.

In a recent article, Hardt and his co-workers have stated that calcium is beneficial in conjunction with other therapeutic measures. Solkin has reported excellent results, particularly in the alleviation of symptoms, by the use of pneumoperitoneum.

There have been 124 cases, in which the diagnosis of tuberculosis of the gastro-intestinal tract has been made, in this hospital from 1934 through 1938. Leaving out fistulae and tuberculosis of the appendix, where they occurred alone, there remain seventy-three cases in which tuberculosis of the bowel proper has been diagnosed. These include cases in which the diagnosis was made on ample clinical data, on x-ray evidence, or at postmortem study. Sixty-five of these cases were probably of the ulcerative type and eight cases had apparently developed their intestinal complication while undergoing sanatorium care. Two of them gave a definite history either of refusing or of not having been offered cod liver oil and tomato juice supplements to their diets.

DR. STURGIS: Those figures of McConkey's, if correct, are very remarkable. At any rate, it is a simple thing to add tomato juice to their diet and it should be routinely given to all tuberculosis cases. Dr. Barnwell, would you like to discuss this case?

DR. JOHN BARNWELL: Tuberculosis, or the reaction of the human body to tuberculosis, may be roughly divided into two forms or stages. The usual fatal form is the exudative or ulcerative type, while the more chronic and less fatal form is the fibroid, productive or hyperplastic type. The patient just presented is typical of the exudative form,

and the tuberculosis exhibits the ulcerative type in both the lungs and the intestine. This exudative form characteristically produces pulmonary cavities and sputum laden with tubercle bacilli. This fact leads to the characteristic extension of this type of the disease through the open channels which receive and convey the tuberculous sputum to other parts of the body, i.e., through the bronchi to other parts of the lungs to set up other exudative foci of tuberculous pneumonia, through the trachea to the platform of the vocal cords to set up ulcerative tuberculous laryngitis, and through the gastro-intestinal tract to set up ulcerative tuberculous ileocolitis in the cecal region where the food column undergoes stagnation and concentration along with the swallowed sputum which it contains. This whole process is known as the "intracanalicular spread" of tuberculosis. Both the physiology and the anatomy of this part of the gut promote the development of tuberculosis at this point. Here the lymph tissue is abundant and the tuberculous lesions extend along the submucosal lymph channels by contiguity to give rise to a continuous lesion, the mucosal ulcerations of which extend upward and downward along the gut without break in the submucosal continuity, but the involvement does not extend through the muscular layers.

These facts lead to our diagnostic criteria of such lesions. The ulcerated cecum exhibits its irritability by spasm which results in ileal stasis of the barium meal, and by hypermotility which results in rapid emptying of the cecum as soon as the barium meal enters it. These phenomena may be observed at the fluoroscopic screen from the third to the tenth hours. The ulcerated borders of the barium-filled colon and broad constricted areas of spasm may be seen in the x-ray film of a barium enema.

Those diagnostic clues indicate only an irritable ulcerated area at a point where tuberculous lesion of the bowel commonly occurs. If they are present in a patient with the exudative or ulcerative form of pulmonary tuberculosis there is a reasonable assumption that the cecal ulcerations are also tuberculous in nature.

The modern treatment of pulmonary tuberculosis tends to prevent the development of all tuberculous complications, including ulcerative ileocolitis, by breaking the continuity of the intracanalicular method of dissemination. This is done by collapsing the pulmonary cavity which is responsible for the sputum and its tubercle bacilli. When this is accomplished promptly, tuberculous complications of the larynx and bowel rarely develop. This is probably responsible for the decrease in the incidence of ulcerative tuberculous ileocolitis among sanatorium patients which Dr. Adcock found in the literature. In the case of this patient, the usual form of collapse, pneumothorax, was unsuccessful because of adhesions too extensive to cut, and collapse by thoracoplasty was delayed until the pneumothorax air could be absorbed and the effect of a paralyzed diaphragm could be determined. Dur-

ing the delay, however, the cavity was continuously open and the sputum continuously positive. The patient developed the intestinal complication within nine months of the first discovery of cavity and positive sputum although she was continuously at bed rest in a sanatorium. There was reason for the delay of thoracoplasty in this case but it should remind us that the penalties of delay are multiple and serious, and usually outweigh the reasons for it.

Another interesting factor in this patient is that she ate poorly and her choice of food was limited although she was offered trays of a well rounded diet. Furthermore, she received no added vitamins. To overcome the fastidious appetite, so common among tuberculous patients, or rather to substitute for, or amplify the low vitamin intake of these patients, the Tuberculosis Unit here and many sanatoria throughout the country have adopted the routine administration of the Ray Brook cocktail, which consists of one-half ounce of chilled cod liver oil floated on three ounces of chilled tomato juice, given after each meal, got its name because the work of McConkey, which Dr. Adcock reported, was done at the New York State Hospital at Ray Brook. After McConkey's work it was hoped that such a routine would act as a prophylactic or preventive of intestinal tuberculosis. In my experience this has proved to be the case for in the ten years since cod liver oil and tomato juice have been given routinely here, I have not seen a patient develop ulcerative tuberculous ileocolitis who had been taking the added vitamins. Contrariwise, I have seen this patient and two other patients develop the complication while under treatment, but these three are known not to have taken either cod liver oil or tomato juice. Dr. Adcock reports from a study of the records of this hospital that six other patients had developed intestinal tuberculosis while under routine sanatorium treatment. The dietary history of these six patients, however, is not known.

The animal experiments of McConkey and Smith, which Dr. Adcock discussed, seem to indicate that vitamin C of the tomato juice alone may be effective in preventing intestinal tuberculosis, and that the cod liver oil may not be necessary. However, in the purely clinical experiments of McConkey this point was not determined on patients. Such clinical experiments are costly in time and in discomfort to the patients so that we have not seen the need of repeating the experiment. Since the remedy appears both cheap and effective, we have continued the routine use of both tomato juice and cod liver oil as prophylaxis and as therapy. It should be brought out here that the clinical effectiveness was demonstrated with tomato juice and whole or crude cod liver oil. We have no right to assume that the results are attributable to any one of the vitamins A, C and D, to any combination of them, or to vitamins only, and not to some other factors which may be present

in the whole oil or the tomato juice. While palatable extracts or concentrates of the vitamins may be as effective for this purpose, this has not been conclusively proven to my knowledge.

One word of caution should be uttered about the use of heliotherapy as treatment for ulcerative tuberculous ileocolitis. These intestinal lesions usually accompany dangerous or even fatal pulmonary lesions, and pulmonary lesions may be aggravated by heliotherapy. It is our practice, therefore, to withhold heliotherapy until the active stage of the pulmonary lesion can be controlled by collapse therapy. In this case the pulmonary lesion is being brought under control by thoracoplasty so that heliotherapy may now be used with more safety.

This case then has been presented as illustrating the problem of the typical exudative reaction to tuberculosis in both the lung and the bowel. The danger in these cases is the constant destruction of tissue and the migration of tubercle bacilli through the open canals of the body. The next case to be presented is typical of the other extreme of the reaction to tuberculosis in that it is fibrous, productive or hyperplastic. There is little destruction and tubercle bacilli are rarely found. They are conveyed to other parts of the body by the blood stream. The danger in these cases is the product of the body's exaggerated attempts at repair by laying down slowly damaging scar tissue.

DR. STURGIS: Dr. Tobias will present the second case for today.

G. R., No. 431157, white, female, aged twenty-eight, was admitted October 5, 1938. Tuberculosis Unit.

History.—Loss of weight, fatigue, and a temperature elevation led to chest x-rays. Positive sputum was found and a diagnosis of pulmonary tuberculosis was made at a sanatorium in 1928. Until admission here she had intermittent sanatorium and home care. In June, 1937, the patient began to notice abdominal, postprandial "lump," accompanied by sharp pain in the same region of the lower right quadrant. When the "lump" was not present there was dull aching in this region. The "lump" itself would be noticeable at about two-weekly intervals, and when present there would be nausea and vomiting, but in the intervals only nausea. During the last admission to the sanatorium, the patient became much worse, and she was fed per rectum, as attempting to swallow even fluids caused vomiting. She improved soon and was able to take a soft diet until June of 1938 when the "lump" reappeared and has persisted. It was associated with almost continuous nausea and aching, and the patient began to be constipated and occasionally had chills and fever.

Physical examination.—Posttussive râles were made out on admission in both lung fields in the upper halves. Examination of the abdomen showed a rounded, firm, tender, non-movable mass, about 5 x 10 centimeters, in the right lower quadrant.

Laboratory findings.—The urine contains occasional red blood cells and white blood cells. There was a slight anemia. The tuberculin skin test was positive with 1:10,000 dilution of O.T. The vital capacity was 2300 c.c. The sedimentation rate in November was 1.15 and now is 0.75 mm. per minute (normal, 0.35). Tubercle bacilli were occasionally

found in the sputum, but were more often absent by both the direct smear and the concentration method.

X-rays.—September 26, 1938, a barium enema met the first obstruction over about a three inch constricted area at about the midpoint of the descending colon and tenderness was noted there. Another constriction was observed in the transverse colon. The origin of the ascending colon, the entire cecum, and the ileocecal junction were greatly constricted and deformed. At this point a large tender mass could be palpated. Air injection films confirmed these findings. The constricted lumen in the cecum, which had about the diameter of a pencil, extended upward along the ascending colon. March 9, 1939, the site of the anastomosis of the ileum and proximal sigmoid was well seen, and apparently functioned freely. There was no barium in the right half of the colon and consequently nothing could be said about the ileocecal junction. X-rays of the chest on admission showed a predominately fibroid type of tuberculous infiltration bilaterally in the middle and lower thirds of the lungs. X-rays loaned by the sanatorium showed these lesions to have been stationary over the previous two years. Subsequent x-rays covering the eight months hospitalization here showed a rather slow but progressive improvement in the pulmonary lesion.

Course.—While here she has been at bed rest, on a low residue diet, supplementary vitamins, and liquid petrolatum as needed. Sputum was persistently present in the quantity of 5 to 10 grams daily, but has increased somewhat recently. Admission weight was 101 pounds. Present weight is 115 pounds. Heliotherapy to the body below the chest was begun on October 4, 1938. Ileosigmoidostomy was performed on January 9, 1939. The pelvic peritoneum and the omentum showed many miliary tubercles, identified by biopsy. In the region of the cecum was a very large mass, the outside of which appeared to be very hard, friable, and covered with pearly-grey nodules. Similar but smaller constricting lesions were noted in the transverse colon and splenic flexure. About three inches of the terminal ileum was involved before it entered the cecal mass. Recovery from operation was uneventful. The patient's condition is improving; she has one stool daily and her body temperature does not exceed 99 degrees.

Discussion

DR. STURGIS: Dr. Adcock, would you like to present further data in regard to this patient?

DR. ADCOCK: According to Brown and Sampson, the hyperplastic form of intestinal tuberculosis was first recognized in 1877 by Duguet. In 1890 Hartmann and Pillet described tuberculous tumors in the region of the cecum which were often mistaken for carcinoma.

In a study on the incidence of this disease, Crawford and Sawyer found eleven cases in 950 autopsies on tuberculous patients. This represents an incidence of 1.1 per cent. These eleven cases made up 1.8 per cent of the 650 cases in which intestinal lesions were present.

Wolpaw reported three cases of isolated hyperplastic tuberculous lesions of the bowel in 1938. He states that only three examples were found in 9,100 routine necropsies and only one example in 40,000 surgical specimens. The lesions of this type of tuberculosis are most frequently seen in the ileocecal region, but are found almost anywhere along

the bowel, save the duodenum. Pathologically the bowel wall is thickened and the lumen narrowed by fibroblastic and lymphoid hyperplasia. Tubercle bacilli are not easily demonstrated in the tissues and are rarely found in examination of the stools. Wolpaw states that the lesions may give rise to long continued, rather vague symptoms of partial obstruction; they may perforate and give a purulent peritonitis; or they may only be discovered in a routine autopsy, having not been suspected clinically during life.

The opinion as to proper therapy has been changing somewhat in the last few years. Until recently, most authors have advocated complete extirpation of the lesion. Rankin and Major in 1932 reported on 65 cases of which fifteen had been treated by lateral anastomosis and the remainder by extirpation. They felt that their results were better where complete surgical removal had been accomplished. Davis, reporting from England in 1933, felt that anastomosis around the lesion was the procedure of choice rather than the usual procedure of extirpation. In a recent review Moore quotes a series of twenty cases reported by Lanty. Half of these were treated by removal of the lesion and half by anastomosis plus postoperative ultraviolet light therapy. Some of those in the latter group were later operated upon a second time and the involved section of bowel was found to be healed and represented by a fibrous cord.

There have been eight cases during the past four years in this hospital that might have been considered as having had the hyperplastic form of intestinal tuberculosis. The distinction between the ulcerative and hyperplastic disease has not been made either by x-ray or pathology, and in finding these cases it has been necessary to make the assumption upon the evidence presented in the record. In these eight cases, two had far advanced pulmonary tuberculosis, three were moderately advanced, and three had no pulmonary disease. Seven of these patients had x-rays, all of them were abnormal, but in only one instance was the word "hyperplastic" used.

DR. STURGIS: Dr. Barnwell, will you discuss this case, please?

DR. BARNWELL: The fibroid type of infiltration seen in the chest x-rays of this patient is a chronic lesion, progressing or regressing with extreme slowness. It will reach a stationary or stable point without the use of collapse therapy. Few symptoms will arise from the lungs and there is no immediate danger from this source. This type of the disease does not spread to distant parts of the lungs or to the larynx. It is not an uncommon type of tuberculosis of the lungs and it is often seen only as a complication of tuberculosis of other organs such as that of the bones, joints, and kidneys. In this case it is seen as a complication of hyperplastic tuberculosis of the bowel.

This form of intestinal tuberculosis is rare and is seen chiefly in surgical clinics or general hos-

pitals rather than in sanatoria where the exudative type of tuberculosis usually prevails. The clinical picture is usually that of low grade intestinal obstruction which persists for a number of months or years before the diagnosis is made or before the obstruction becomes acute.

If the hyperplastic mass is in a fixed part of the bowel, such as the cecum, as it is in this patient, a mass is easily palpable. On the other hand, these constricting lesions may be small and lie only in loose coils of the ileum and cannot be detected by palpation. They are usually isolated and may be multiple as are other hematogenous lesions. The tuberculous involvement is not limited to the mucosa and submucosal layers but usually affects the entire wall of the intestine though it may spare the mucosa since it is a hyperplastic rather than an ulcerative form of the disease. The heaping up of the fibrous infiltration produces an anatomical rather than a functional narrowing of the lumen of the gut.

The lesions are recognized in the x-ray by the barium meal or the barium enema as constricting masses surrounding and protruding into the lumen. They require differentiation, therefore, from malignancy, whereas the ulcerative form of intestinal tuberculosis requires differentiation from ulcerative colitis. The diagnosis is usually made at operation and the preoperative diagnosis is frequently "intestinal obstruction" only. The complication of fibroid form of tuberculosis of the lungs suggests the diagnosis of hyperplastic tuberculosis of the bowel, as it did in this case. Furthermore, the anatomical strictures seen in x-rays of the barium column remain fixed and unchanged at each serial observation over relatively long periods of time or extend very slowly.

The treatment of such patients is the surgical relief of the obstruction by resection or by short circuiting of the lesion. The patient's condition may be improved by rest, ultra-violet light, low residue diet, mineral oil and other general measures which makes the outlook better for an elective operation. This has been accomplished in this patient since on admission she was not in good enough condition for operation.

Although surgical measures may make immediate correction of the obstruction, it must be remembered that these patients have tuberculosis which must be treated conservatively for a number of years.

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HEALTH PLAN TO CONGRESS

(The Detroit News)

Studies of the needs and the developing movement for providing good medical care more widely have been fully reported and sympathetically treated editorially in *The News* for years. President Roosevelt now transmits "for the careful study of Congress" the report by his Interdepartmental Committee to Coördinate Health and Welfare Activities.

Except for a feature involving a form of compulsory health insurance, the program for an even division of the costs between the States and the national Government and for a Federal-State administration of all health services probably has general support in the medical world and would be a step onward in social progress.

But the attractions can not be regarded as the controlling consideration at this time. The cost for a first year would be \$100,000,000. After 10 years, the costs are probably underestimated at \$850,000,000. As money matters stand in national financing and in most States, where would the additional great sums come from?

As time has gone on, with the subject kept before the public, state medical societies, Michigan's among others, have taken progressive steps to assist better in serving patients unable to pay anything and to provide for low-cost facilities for the low-income classes. These efforts will be tested if adoption of a Government system rests in abeyance.

Although on the whole speaking favorably, the President did not urge immediate legislation. It may be his admission of the regrettable fact that the assumption of this major additional public expense is not at present safely practicable. All the promising things can not be done quickly. This is one which surely would best await a national income restored to the prosperity level, with the national treasury extricated from its desperate straits.

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JULY, 1939

*"Every man owes some of his time to the up-
 building of the profession to which he belongs."*

—THEODORE ROOSEVELT.

EDITORIAL

THE BEAUMONT FOUNDATION

THE Beaumont Foundation is an institution of the Wayne County Medical Society which needs no introduction to the medical profession of the State of Michigan. Most of the annual lectures have appeared in this JOURNAL. They have dealt for the most part with the subjects basic to medical science with the object in view of interesting the greatest number of readers in the purely scientific phases of medicine. While the 1939 lectures are more specialized and therefore do not concern directly the entire field of medicine and surgery, the subject nevertheless is an important one, namely, specific therapy of pneumonia, given by Dr. Jesse

G. M. Bullowa, Clinical Professor of Medicine, New York University College of Medicine. The first of these lectures appears in the July number of THE JOURNAL, to be followed by the second in August. Sometime later, these lectures will appear in book form, uniform with former volumes of the Beaumont Foundation. However, we are gratified by the fact that we are able to afford a wide distribution, even before publication in book form.

Many gather to listen to lectures. The lecture is more or less a transient matter. It is impossible to carry away statistics or graphs that are flashed for a moment on a screen. It is often difficult to remember exactly the speaker's statements with enough assurance that remembrance can be relied upon for practice. Hence, the printed page. The printed page also has the advantage of revision and correction of lectures with afterthoughts that may have arisen out of their delivery. The lectures here presented in THE JOURNAL are a textbook on the subject of diagnosis and latest methods of treatment of pneumonia. If the entire JOURNAL is not preserved in volume form, the July and August numbers should be preserved for repeated study.

WAS IT SCIENTIFIC?

THERE is such a thing as entertaining a theory or proposition and then setting out to gather data to prove it to be true. This attitude is best described as rationalizing. The true scientist has no axe to grind. He approaches his subject with an attitude of detachment. The data he gathers may be inconclusive; if so, he works on until he is justified in making a statement he regards as true to a certain point decimal, with a margin of possible error. The propagandist does not work this way. His concern is to carry his pet theory and he is apt to become annoyed if his conclusions are challenged.

The *New York State Journal of Medicine* comments editorially on the nature of the National Health Survey that was the main inspiration of the Wagner National Health Bill. It did not include the entire country but was a house-to-house canvas of 740,000 city families and 36,000 rural families representing approximately 3,000,000 persons, less than one-fortieth of the popula-

tion of the United States. The canvass was made by laymen, the accuracy of whose conception of chronic disease or physical impairment is open to question, to say the least. People were asked to recall the number and duration of illnesses during the eighteen months' period preceding the visit of the census taker. There is room for inaccuracy here. People do not as a rule recall details long after the event.

Commenting, the *New York State Journal of Medicine* continues:

"Other factors impel one to question the representatives of the information garnered. For one thing, certain conclusions based on information from strictly urban areas are represented as applying to the entire country. For another, there is no token that the sample group is rightfully comparable to the rest of the population on the basis of income, occupation, age, sex, and marital status.

"Apart from factual accuracy, however, the results of the National Health Survey are open to question on the grounds of bias. Throughout the published reports, there is a definite tendency to paint as black a picture of the nation's health as possible. The interpretation of mortality rates as often at variance with the views of the outstanding vital statisticians of the country.

"Naturally, drastic remedies seem more palatable to the general public when the situation is made to appear very grave. This is not the scientific approach, however, nor is it conducive to a strictly accurate, honest report."

WILLIAM BEAUMONT

THE name of Dr. William Beaumont, pioneer American physiologist, needs no introduction in this state. But why mention the matter at this time? In 1912, the late Dr. Jesse Myers of St. Louis, published a work on the Life and Letters of William Beaumont which many of us took the occasion to read at that time. This work which bore the imprint of the C. V. Mosby Company of St. Louis, has been long out of print. The publishers, however, have made good in a very handsome volume bearing the date 1939. This is a new print of Myer's original work with Osler's introduction, which appeared in the 1912 edition. The present volume, however, has a very interesting chapter by Dr. A. C. Ivy, Professor of Physiology and Pharmacology, Northwestern University Medical School, Chicago. Dr. Ivy's chapter is entitled, "A Present-Day Appreciation of Beaumont's Experiments on Alexis St. Martin." This evaluation of Beaumont's work in the light of present-day gastric physiology will be appreciated by students of Beaumont's work. In Wayne County, Michigan, Beau-

mont's memory has been perpetuated by the Beaumont Foundation, which is named for him. During the past seventeen years, without interruption, lectures on the subjects basic to medical science have been presented by the Beaumont Foundation by men of outstanding ability and reputation in the United States and Canada.

Everyone will want this new reprint of Myer's original work. It will make a handsome gift volume as a birthday remembrance to some medical friend. Procure a copy for yourself and take it on your vacation.

A PRACTICE WHICH SHOULD NOT BE ENCOURAGED

AN institution which has come into existence within recent years in the so-called Foundation, whereby a certain portion of the wealth of some financial magnate (some deceased, some still living) is set aside for some specific purpose such as the betterment of humanity. Much of this wealth has been put to laudable use which no reasonable person would deny. The fields of the Rockefeller Foundation and the Carnegie Foundation are as wide as humanity itself. There have been instances, however, in which not so much wisdom has been shown. The best form of charity, without a doubt, is that which helps a person to help himself.

We have been informed that one of the large foundations has undertaken to supply laboratory service including x-ray to seven counties of Michigan, to all citizens regardless of ability to pay, at fees which the professional roentgenologist has found out by experience to be much less than the technical cost of producing the radiograph. Make this practice universal and the result will be the deterioration of what has proven to be one of the most useful and progressive specialties in medicine. Not only this, but it will tend to pauperize all those who can afford to pay regular fees for such diagnostic service. It is practically in the same category as providing groceries and fuel at a ridiculously low rate to those who do not ask nor require such charity.

No one questions the idea of providing necessities for the indigent; though even in this regard every effort should be made to aid the indigent to help themselves. In

the matter of meeting low income groups part way, roentgenologists have always willingly coöperated, as seen in the effort to round up incipient tuberculosis in Detroit. However, to provide such diagnostic service below actual cost, making up the actual cost by funds of a benevolent foundation, would soon result in a dearth of competent roentgenologists, for no one would consider a specialty in which there was not at least a living, nothing but personal taxes and overhead.

There has been much opposition to state medicine, not only in the medical profession, but among thoughtful laymen as well. The latter have solaced themselves with the feeling that, state or socialized medicine or not, they would employ their own doctor. Foundation practice of medicine works out the same as state medicine; it is virtually the same thing under a different name, with the foundation instead of the state as the beneficent father.

With all efforts to provide for the indigent we are in accord, but our efforts should not be of such a nature as to encourage and promote indigency. The director of the Foundation in mind is one of the best informed physicians of the Michigan profession, a man who is fair minded and desirous of administering his trust in the best interests of its beneficiaries. To pauperize those who can afford to pay a reasonable fee for medical service, however, is not in their interest.

CREDITS FOR POSTGRADUATE EDUCATION

THE numerous letters being received by the Advisory Committee on Postgraduate Education of the Michigan State Medical Society in regard to certification of postgraduate attendance seem to indicate that there is not a complete understanding of the basis for credits. The following is accepted at present, based on a total of 15 units a year over a four-year period:

<i>Attendance on</i>	<i>Units</i>
1. County medical society meetings (60% minimum)	3
2. State Society meeting.....	2
3. American Medical Association meeting..	2
4. One-day Michigan Postgraduate conference	1
5. A recognized national meeting.....	1

6. 75% or more of eight-day extramural course	15
7. Yearly composite course.....	15
8. One week special courses in Michigan program (each).....	5
9. Formal, special courses in recognized specialty to which physician limits himself	15
10. Membership in and attendance on approved educational societies and activities	1-5
11. Membership in and regular attendance on accredited hospital staff conferences..	2-10

The attention of the reader is called to the section under the Michigan Department of Health which we publish from month to month. This material is extremely valuable to all physicians in actual practice of medicine inasmuch as it provides among other things a knowledge of laws concerning public health in this state as they come into existence or as they are revised from time to time. If the reader will turn to the section of the Michigan Department of Health in this number of *THE JOURNAL*, he will find a number of important legislative enactments or amendments. A perusal of these items is not only the most convenient but perhaps the only means the majority of us have of keeping informed on state health legislation.

ERYSIPELAS MORTALITY RATE REDUCED BY SULFANILAMIDE

The death rate from erysipelas has been greatly reduced by the use of sulfanilamide in its treatment, John Nelson, M.D., Harvey Rinzler, M.D., New York, and M. P. Kelsey, M.D., Temple, Texas, state in *The Journal of the American Medical Association* for March 18.

In 406 cases of erysipelas treated at Bellevue Hospital, New York, during the winter of 1935-1936 with erysipelas antitoxin the death rate in adults was 9.2 and in children 37.5 per cent. From January to July, 1937, 344 patients with the disease were treated with sulfanilamide and the mortality in 313 adults was 1.44 per cent and in thirty-one children it was 12.9 per cent.

Erysipelas is a contagious disease, characterized by fever, chills, insufferable itching and burning, painful swelling and spreading patches of redness of the affected part or parts.

It is another of the many varieties or types of streptococcic infections which apparently are effectively treated by sulfanilamide.

Adverse reactions (nausea, cyanosis, dizziness, vomiting and jaundice) may occur with sulfanilamide treatment. However, these reactions should not prevent or prohibit its use, but it is readily seen that the drug should be given only by an experienced physician and that the patient with this disease should be hospitalized.

◆ The 1939 Meeting ◆

OFFICIAL CALL

THE Michigan State Medical Society will convene in Annual Session in Grand Rapids on September 18, 19, 20, 21, 22, 1939. The provisions of the Constitution and By-laws and the Official program will govern the deliberations.

Henry A. Luce, M.D.,
President
P. R. Urmston, M.D.,
Chairman of The Council
Philip A. Riley, M.D.,
Speaker

Attest: L. Fernald Foster, M.D., Secretary.

* * *

SESSIONS OF THE HOUSE OF DELEGATES

MONDAY, SEPTEMBER 18, 1939

Pantlind Hotel, Grand Rapids

8:00 A. M. Delegates' Breakfast, Swiss Room
9:00 A. M. First Session, Ball Room
3:00 P. M. Second Session, Ball Room
8:00 P. M. Third Session, Ball Room

HOUSE OF DELEGATES, 1938

Ball Room, Pantlind Hotel, Grand Rapids

Order of Business*

MONDAY, SEPTEMBER 18, 1939

8:00 A. M. sharp—Delegates' Breakfast, Swiss Room

9:00 A. M. sharp—First Session, Ball Room

1. Call to order by the Speaker.
2. Report of Committee on Credentials
3. Roll Call
4. Appointment of Reference Committees:
 - On Officers' Reports
 - On Reports of The Council
 - On Reports of Standing Committees
 - On Reports of Special Committees
 - On Amendments to Constitution and By-laws
 - On Resolutions
5. Speaker's Address—Philip A. Riley, M.D., Jackson
6. President's Address—Henry A. Luce, M.D., Detroit
7. President-elect's Address—Burton R. Corbus, M.D., Grand Rapids
8. Annual Report of The Council.
9. Report of Delegates to American Medical Association
10. Reports of Standing Committees:
 - (a) Legislative Committee
 - (b) Representatives to Joint Committee on Health Education
 - (c) Committee on Distribution of Medical Care
 - (d) Cancer Committee
 - (e) Preventive Medicine Committee (and advisory committees on Degenerative Diseases; Pneumonia; Syphilis; and Tuberculosis)
 - (f) Committee on Postgraduate Medical Education
 - (g) Public Relations Committee
 - (h) Ethics Committee

Recess

MONDAY, SEPTEMBER 18, 1939

3:00 P. M. sharp—Second Session, Ball Room

1. Supplementary Report of Committee on Credentials
2. Roll Call
3. Reports of Special Committees:
 - (a) Maternal Health Committee
 - (b) Contact Committee to Governmental Agencies
 - (c) Mental Hygiene Committee
 - (d) Radio Committee
 - (e) Advisory Committee, Woman's Auxiliary
 - (f) Liaison Committee with Michigan Hospital Association
 - (g) Liaison Committee with State Bar of Michigan
 - (h) Committee on Health League
 - (i) Advisory Committee to Parole Commission
 - (j) Membership Committee
 - (k) Committee on Occupational Disease and Industrial Hygiene
 - (l) Iodized Salt Committee
 - (m) Advisory Committee on Medico-Legal Activities
 - (n) Advisory Committee on Nurses Training Schools

4. Unfinished Business

5. Resolutions*

6. New Business*

7. Reports of Reference Committees

- (a) On Officers' Reports
- (b) On Reports of The Council
- (c) On Reports of Standing Committees
- (d) On Reports of Special Committees
- (e) On Amendments to Constitution and By-laws
- (f) On Resolutions

Recess

MONDAY, SEPTEMBER 18, 1939

8:00 P. M. sharp—Third Session, Ball Room

1. Supplementary Report of Committee on Credentials
2. Roll Call
3. Supplementary Report from The Council
4. Supplementary Report from Reference Committees
5. Elections:
 - (a) Councilor:
Fourteenth District to Succeed Howard H. Cummings, M.D., Ann Arbor
 - (b) Delegates to AMA to succeed:
L. G. Christian, M.D., Lansing
Alternates to succeed:
G. J. Curry, M.D., Flint
Ralph H. Pino, M.D., Detroit
 - (c) Place of Annual Meeting
 - (d) President-elect
 - (e) Speaker of House of Delegates
 - (f) Vice Speaker of House of Delegates

6. Adjournment

*See the Constitution, Article IV, and the By-laws, Chapter 3, on the "House of Delegates."

*All resolutions, special reports, and new business shall be presented in duplicate.

OUTLINE OF GENERAL ASSEMBLY PROGRAM

Grand Rapids—September 19, 20, 21, 22, 1939

	Tuesday, Sept. 19, 1939	Wednesday, Sept. 20, 1939	Thursday, Sept. 21, 1939	Friday, Sept. 22, 1939
A. M. 9:30 to 10:00	RICHARD B. CATTELL, M.D., Boston	SECTION	ANTHONY SINDONI, Jr., M.D., Philadelphia	CARL HUBER, M.D., Indianapolis
10:00 to 10:30	W. O. THOMPSON, M.D., Chicago	SECTION	LEROY A. CALKINS, M.D., Kansas City	THOMAS E. JONES, M.D., Cleveland
10:30 to 11:00	Intermission to VIEW EXHIBITS	SECTION	Intermission to VIEW EXHIBITS	Intermission to VIEW EXHIBITS
11:00 to 11:30	JAMES GOODALL, M.D., Montreal	SECTION	LOUIS SCHWARTZ, M.D., New York	HENRY C. SCHUMACHER, M.D., Cleveland
11:30 to 12:00	PHILIP G. CASHMAN, Ph.D., Boston	SECTION	HENRY M. GOODYEAR, M.D., Cincinnati	(To be announced later)
P. M. 12:00 to 12:30	SANFORD R. GIFFORD, M.D., Chicago	SECTION	BUDD C. CORBUS, M.D., Chicago	ROBERT C. HOOD, M.D., Washington
12:30 to 1:30	Luncheon VIEW EXHIBITS	Luncheon VIEW EXHIBITS	Luncheon VIEW EXHIBITS	Luncheon VIEW EXHIBITS
1:30 to 2:00	JONATHAN C. MEAKINS, M.D., Montreal	HENRY W. WOLTMAN, M.D., Rochester, Minn.	HAROLD N. COLE, M.D., Cleveland	GEORGE CRILE, Jr., M.D., Cleveland
2:00 to 2:30	BERT I. BEVERLY, M.D., Chicago	C. GUY LANE, M.D., Boston	JAMES ALEXANDER MILLER, M.D., New York	(To be announced later)
2:30 to 3:00	Intermission to VIEW EXHIBITS	Intermission to VIEW EXHIBITS	Intermission to VIEW EXHIBITS	Intermission to VIEW EXHIBITS
3:00 to 3:30	EDWIN E. OSGOOD, M.D., Portland, Ore.	JAS. W. WHITE, M.D., New York	McIVER WOODY, M.D., New York	MAXWELL FINLAND, M.D., Boston
3:30 to 4:00	HAROLD I. LILLIE, M.D., Rochester, Minn.	HUGH McCULLOCH, M.D., St. Louis	LLOYD D. FELTON, M.D., Washington	(To be announced later)
4:00 to 4:30	ISIDORE S. RAVDIN, M.D., Philadelphia	ARTHUR H. CURTIS, M.D., Chicago	BENJ. RICE SHORE, M.D., New York	Wm. D. STROUP, M.D., Philadelphia
4:30 to 6:00	VIEW EXHIBITS	VIEW EXHIBITS	VIEW EXHIBITS	VIEW EXHIBITS
6:00 to 8:00	Secretaries' Conference	Exhibitors' Gridiron	Fraternity and Alumni Dinners	END OF CONVENTION
8:00 to 10:30	Economics Night Ed. J. McCormick, M.D., Toledo	President's Night Biddle Lecturer: ROCK SLEYSTER, M.D., Wauwatosa, Wis.	Postgraduate Convocation Speaker: JAMES ALEXANDER MILLER, M.D., New York	

All General Assemblies will be held in the Black and Silver Ballroom of the Grand Rapids Civic Auditorium.

MEMBERS OF THE
HOUSE OF DELEGATES, 1939
MICHIGAN STATE MEDICAL SOCIETY

PHILIP A. RILEY, M.D., Jackson, *Speaker*
MARTIN H. HOFFMANN, M.D., Eloise, *Vice Speaker*
L. FERNALD FOSTER, M.D., Bay City, *Secretary*

Names of Alternates appear in italics

1. **Allegan**
E. T. Brunson, M.D., Ganges
E. D. Osmun, M.D., Allegan
2. **Alpena-Alcona-Presque Isle**
F. J. O'Donnell, M.D., Alpena
A. R. Miller, M.D., Harrisville
3. **Barry**
R. B. Harkness, M.D., Hastings
H. Wedel, M.D., Freeport
4. **Bay-Arenac-Iosco-Gladwin**
Roy C. Perkins, M.D., Davidson Building, Bay City
C. L. Hess, M.D., Davidson Building, Bay City
5. **Berrien**
Fred Henderson, M.D., Niles
W. C. Ellet, M.D., Benton Harbor
R. T. Hart, M.D., Niles
6. **Branch**
R. L. Wade, M.D., Coldwater
Sam Schultz, M.D., Coldwater
7. **Calhoun**
Harvey Hansen, M.D., 1102 Central Tower, Battle Creek
Norman H. Amos, M.D., 1108 Central Tower, Battle Creek
A. T. Hafford, M.D., Albion
A. A. Humphrey, M.D., Lelia Hospital, Battle Creek
8. **Cass**
K. C. Pierce, M.D., Dowagiac
J. K. Hickman, M.D., Dowagiac
9. **Chippewa-Mackinac**
W. F. Mertaugh, M.D., Sault Ste. Marie
L. M. McBryde, M.D., Sault Ste. Marie
10. **Clinton**
G. H. Frace, M.D., St. Johns
W. W. Sawyer, M.D., St. Johns
11. **Delta-Schoolcraft**
Wm. Lemire, M.D., Escanaba
Otto S. Hult, M.D., Gladstone
12. **Dickinson-Iron**
E. M. Libby, M.D., Iron River
W. H. Alexander, M.D., Iron Mountain
13. **Eaton**
Paul Engle, M.D., Olivet
E. Imthun, M.D., Grand Ledge
14. **Genesee**
F. E. Reeder, M.D., 808 Genesee Bank Bldg., Flint
R. S. Halligan, M.D., 405 East First Street, Flint
Robert Scott, M.D., 1215 Detroit Street, Flint
Donald Wright, M.D., 403 West Court Street, Flint
George Curry, M.D., 402 Genesee Bank Bldg., Flint
Donald Brasie, M.D., Citizens' Bank Bldg., Flint
15. **Gogebic**
W. E. Tew, M.D., Bessemer
J. D. Reid, M.D., Ironwood
16. **Grand Traverse-Leelanau-Benzie**
C. E. Lemen, M.D., 202 State Bank Bldg., Traverse City
None named
17. **Gratiot-Isabella-Clare**
Myron G. Becker, M.D., Edmore
None named

18. **Hillsdale**
Luther Day, M.D., Jonesville
O. G. McFarland, M.D., North Adams
19. **Houghton-Keweenaw-Baraga**
G. C. Stewart, M.D., Hancock
None named
20. **Huron-Sanilac**
J. C. Webster, M.D., Marlette
C. W. Oakes, M.D., Harbor Beach
21. **Ingham**
C. F. DeVries, M.D., 320 Townsend, Lansing
R. L. Finch, M.D., 124 West Lenawee, Lansing
H. W. Wiley, M.D., 300 West Ottawa, Lansing
R. A. Burhans, M.D., 806 Olds Tower, Lansing
W. H. Welch, M.D., 511 Townsend, Lansing
W. M. Cameron, M.D., 1015 Washington, Lansing
22. **Ionia-Montcalm**
R. R. Whitten, M.D., Ionia
L. E. Kelsey, M.D., Lakeview
23. **Jackson**
Philip A. Riley, M.D., 500 South Jackson Street, Jackson
Horatio A. Brown, M.D., 701 Reynolds Building, Jackson
James J. O'Meara, M.D., 608 Peoples Natl. Bank, Jackson
Corwin S. Clarke, M.D., 605 Dwight Block, Jackson
24. **Kalamazoo**
R. J. Hubbell, M.D., 1311 American Natl. Bank, Kalamazoo
Sherman Gregg, M.D., 334 South Park Street, Kalamazoo
Fred M. Doyle, M.D., 1315 American Natl. Bank, Kalamazoo
Paul Koestner, M.D., 1303 Portage Street, Kalamazoo
I. W. Brown, M.D., City Health Department, Kalamazoo
George Caldwell, M.D., 301 Henrietta Street, Kalamazoo
25. **Kent**
C. F. Snapp, M.D., Medical Arts Building, Grand Rapids
O. H. Gillet, M.D., Metz Building, Grand Rapids
A. V. Wenger, M.D., 302 Loraine Bldg., Grand Rapids
Paul W. Willits, M.D., Medical Arts Bldg., Grand Rapids
P. W. Kniskern, M.D., Medical Arts Building, Grand Rapids
Ward Ferguson, M.D., 72 Sheldon Ave. S. E., Grand Rapids
W. R. Torgerson, M.D., Metz Building, Grand Rapids
W. L. Bettison, M.D., Medical Arts Bldg., Grand Rapids
G. H. Southwick, M.D., 55 Sheldon Ave. S. E., Grand Rapids
David B. Davis, M.D., Medical Arts Bldg., Grand Rapids
26. **Lapeer**
H. M. Best, M.D., Lapeer
D. J. O'Brien, M.D., Lapeer
27. **Lenawee**
A. W. Chase, M.D., Adrian
E. T. Morden, M.D., Adrian
28. **Livingston**
H. G. Huntington, M.D., Howell
J. J. Hendren, M.D., Fowlerville
29. **Luce**
R. E. Spinks, M.D., Newberry
E. H. Campbell, M.D., Newberry
30. **Macomb**
D. Bruce Wiley, M.D., Utica
A. B. Bowers, M.D., Armada

31. **Manistee**
E. A. Oakes, M.D., Manistee
L. W. Switzer, M.D., Manistee
32. **Marquette-Alger**
Vivian Vandeventer, M.D., Ishpeming
R. A. Burke, M.D., Palmer
33. **Mason**
H. B. Hoffman, M.D., Ludington
34. **Mecosta-Osceola**
G. H. Yeo, M.D., Big Rapids
V. J. McGrath, M.D., Reed City
35. **Menominee**
H. T. Sethney, M.D., Menominee
S. C. Mason, M.D., Menominee
36. **Midland**
R. Rice, M.D., Midland
Ed. Meisel, M.D., Midland
37. **Monroe**
D. C. Denman, M.D., 9 South Monroe St., Mon-
roe
J. H. McMillin, M.D., Monroe Hospital, Mon-
roe
38. **Muskegon**
E. N. D'Alcorn, M.D., Muskegon
S. W. Hartwell, M.D., Muskegon
E. O. Foss, M.D., Muskegon
L. E. Holly, M.D., Muskegon
39. **Newaygo**
O. D. Stryker, M.D., Fremont
W. H. Barnum, M.D., Fremont
40. **Northern Michigan**
(Antrim, Charlevoix, Emmet, Cheboygan)
W. H. Mast, M.D., Cheboygan
H. M. Harrington, M.D., East Jordan
41. **Oakland**
Aaron Riker, M.D., 1012 Riker Bldg., Pontiac
Harold Roehm, M.D., 322 Wabeek Bldg., Bir-
mingham
Richard Olsen, M.D., 932 Riker Bldg., Pon-
tiac
Vernon Abbott, M.D., 32 Auburn Street, Pon-
tiac
Otto O. Beck, M.D., 308 Wabeek Bldg., Bir-
mingham
Arthur Young, M.D., 912 Riker Bldg., Pontiac
42. **Oceana**
Merle G. Wood, M.D., Hart
A. R. Hayton, M.D., Shelby
43. **O.M.C.O.R.O. (Otsego-Montmorency-Craw-
ford-Oscoda-Roscommon-Ogemaw)**
C. R. Keyport, M.D., Grayling
C. G. Clippert, M.D., Grayling
44. **Ontonagon**
E. J. Evans, M.D., Ontonagon
S. H. Rubinfeld, M.D., Ontonagon
45. **Ottawa**
A. E. Stickley, M.D., Coopersville
R. H. Nichols, M.D., Holland
46. **Saginaw**
C. E. Toshach, M.D., Saginaw
L. Harvie, M.D., Saginaw
W. K. Anderson, M.D., Saginaw
S. Sheldon, M.D., Saginaw
47. **Shiawassee**
A. L. Arnold, Jr., M.D., Owosso
C. M. Wilcox, M.D., Owosso
48. **St. Clair**
A. L. Callery, M.D., Port Huron
D. W. Patterson, M.D., Port Huron
49. **St. Joseph**
R. A. Springer, M.D., Centerville
Aben Hackman, M.D., Constantine
50. **Tuscola**
T. E. Hoffman, M.D., Vassar
W. P. Petrie, M.D., Caro
51. **Van Buren**
Wm. R. Young, M.D., Lawton
Edwin Terwilliger, M.D., South Haven
52. **Washtenaw**
John A. Wessinger, M.D., 339 East Washington
Street, Ann Arbor
H. D. Barass, M.D., 133 West Michigan, Ypsi-
lanti
Dean Myers, M.D., St. Joseph Mercy Hospital,
Ann Arbor
G. J. Prout, M.D., Saline
L. J. Johnson, M.D., 225 East Liberty Street,
Ann Arbor
Henry Field, Jr., M.D., University Hospital,
Ann Arbor
53. **Wayne**
R. H. Pino, M.D., 1001 David Whitney Bldg.,
Detroit
J. M. Robb, M.D., 641 David Whitney Bldg.,
Detroit
W. D. Barrett, M.D., 311 David Whitney Bldg.,
Detroit
Chas. S. Kennedy, M.D., 10 Peterboro, Detroit
R. L. Novy, M.D., 662 Maccabees Bldg., Detroit
T. K. Gruber, M.D., Eloise Hospital, Eloise
E. D. Spalding, M.D., 662 Maccabees Bldg.,
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C. E. Umphrey, M.D., 13331 Livernois Avenue,
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R. M. McKean, M.D., 1515 David Whitney
Bldg., Detroit
Douglas Donald, M.D., 938 David Whitney
Bldg., Detroit
G. C. Penberthy, M.D., 1515 David Whitney
Bldg., Detroit
J. H. Andries, M.D., 402 David Whitney Bldg.,
Detroit
A. E. Catherwood, M.D., 1337 David Whitney
Bldg., Detroit
*Wm. R. Clinton, M.D., Detroit
W. B. Cooksey, M.D., 62 West Kirby, Detroit
Gaylord S. Bates, M.D., 1563 David Whitney
Bldg., Detroit
L. J. Hirschman, M.D., 7815 East Jefferson,
Detroit
S. W. Insley, M.D., 1302 Maccabees Bldg.,
Detroit
Wm. J. Stapleton, M.D., 641 David Whitney
Bldg., Detroit
H. F. Dibble, M.D., 1313 David Whitney Bldg.,
Detroit
H. W. Plaggemeyer, M.D., 1701 David Whitney
Bldg., Detroit
R. C. Jamieson, M.D., 1309 David Whitney
Bldg., Detroit
A. P. Biddle, M.D., 938 David Whitney Bldg.,
Detroit
C. F. Brunk, M.D., 7815 East Jefferson, Detroit
A. W. Blain, M.D., 2201 East Jefferson, Detroit
P. L. Ledwidge, M.D., 1838 David Whitney
Bldg., Detroit
C. E. Dutchess, M.D., c/o Parke, Davis & Co.,
Detroit
F. H. Cole, M.D., 1757 David Whitney Bldg.,
Detroit
Allan McDonald, M.D., 1340 Maccabees Bldg.,
Detroit
L. J. Bailey, M.D., 7722 Dexter, Detroit
L. W. Shaffer, M.D., 1368 Yorkshire Road,
Grosse Pointe Park
C. Fremont Vale, M.D., 1305 David Whitney
Bldg., Detroit

*Deceased May 29, 1939.

C. K. Hasley, M.D., 1429 David Whitney Bldg., Detroit
 L. T. Henderson, M.D., 13038 East Jefferson, Detroit
 *R. Lee Laird, M.D., 513 David Whitney Bldg., Detroit
 J. A. Jasper, M.D., Herman Kiefer Hospital, Detroit
 H. J. Kullman, M.D., 1515 David Whitney Bldg., Detroit
 E. R. Witwer, M.D., Harper Hospital, Detroit
 Wm. P. Woodworth, M.D., 2994 Grand Blvd., Detroit
 S. E. Gould, M.D., 1432 Longfellow, Detroit
 C. E. Lemmon, M.D., 10503 West Jefferson, River Rouge
 C. K. Valade, M.D., 6104 Eaton Tower, Detroit
 G. L. McClellan, M.D., 2501 West Grand Blvd., Detroit
 C. E. Simpson, M.D., 1210 Kales Building, Detroit
 Wm. S. Reveno, M.D., 951 Fisher Building, Detroit
 John A. Hookey, M.D., 655 Fisher Building, Detroit
 H. L. Clark, M.D., 634 Maccabees Bldg., Detroit
 D. I. Sugar, M.D., 7310 Grand River Ave., Detroit
 L. O. Geib, M.D., 3528 Van Dyke Ave., Detroit
 B. H. Priborsky, M.D., 742 Maccabees Bldg., Detroit
 A. F. Jennings, M.D., 7815 East Jefferson, Detroit
 Meshel Rice, M.D., 5210 Third Street, Detroit
 B. I. Johnstone, M.D., 555 Fisher Building, Detroit
 F. W. Hartman, M.D., Henry Ford Hospital, Detroit
 M. H. Hoffmann, M.D., Eloise Hospital, Eloise
 C. S. Ratigan, M.D., 22340 Michigan Avenue, Dearborn
 E. A. Weiser, M.D., 1502 David Whitney Bldg., Detroit
 Geo. A. Troester, M.D., 16131 Mack Avenue, Detroit
 W. B. Harm, M.D., 5884 West Vernor Highway, Detroit
 L. J. Garipey, M.D., 16401 Grand River, Detroit
 L. W. Hull, M.D., 1701 David Whitney Bldg., Detroit
 R. I. Walker, M.D., 1320 David Whitney Bldg., Detroit
 Harry Kirschbaum, M.D., 2240 West Grand Blvd., Detroit
 B. Friedlaender, M.D., 300 Mack Avenue, Detroit
 W. E. E. Tyson, M.D., 1649 Pennsylvania Ave., Detroit
 H. W. Peirce, M.D., 1652 David Whitney Bldg., Detroit
 G. M. Byington, M.D., 1374 Yorkshire Road, Grosse Pointe Park
 H. B. Fenech, M.D., 10 Peterboro, Detroit
 G. L. Coan, M.D., 114 Maple Street, Wyandotte
 F. J. Kilroy, M.D., Receiving Hospital, Detroit
 H. L. Morris, M.D., 866 Fisher Building, Detroit
 F. X. Krynicki, M.D., 5466 Chene Street, Detroit
 54. **Wexford**
 W. J. Smith, M.D., Granite Block, Cadillac
 John F. Gruber, M.D., Hartley Building, Cadillac

SUMMARY OF PROCEEDINGS OF HOUSE OF DELEGATES—1938

The Seventy-third Annual Meeting of the House of Delegates of the Michigan State Medical Society was held at Detroit, September 19, 1938. The House of Delegates:

1. Accepted and adopted with thanks the reports of the Speaker of the House of Delegates (1019*), the President (1019), the President-Elect (1019), Reports of the Council, (1020), Advisory Committee to Woman's Auxiliary (1019), Radio Committee (1019), Committee on Maternal Health (1019), Contact Committee with Governmental Agencies (1019), Mental Hygiene Committee (1019), Occupational Disease Committee (1019), Advisory Committee to Parole Commission (1020), Membership Committee (1020), Michigan Health League (1020), Liaison Committee with Michigan Hospital Association (1020), Liaison Committee with State Bar of Michigan (1020), Committee on Iodized Salt (1020), Report of Delegates to American Medical Association (1020), Legislative Committee (1027), Joint Committee on Health Education (1028), Post Graduate Medical Education (1028), Public Relations Committee (1028), Cancer Committee (1028), Medico-Legal Committee (1028), Preventive Medicine Committee (including advisory committees on Syphilis Control and Tuberculosis) (1028), Ethics Committee (1028), and the Committee on Distribution of Medical Care (1028).

2. Referred to 1939 session of House of Delegates proposed amendment to the Constitution of the M.S.M.S., Article III, Section 1, by adding the following sentence: "Membership in the County Medical Society on a basis not including membership in the Michigan State Medical Society is not recognized." (1031)

3. Adopted amendment to By-Laws, Chapter 5, Section 12, changing the Councilor districts by adding the following counties to District No. 9—Northern Michigan, including, Antrim, Charlevoix, Cheboygan and Emmet; and adding to District No. 10—Alpena-Alcona-Presque Isle Counties. Also merging the Delta County Medical Society and the Schoolcraft County Medical Society. Also renumbering District No. 17 to No. 13. (1031)

4. Elected the following to Emeritus Membership (1030): Geo. E. Clark, M.D., Detroit; Robert W. Gillman, M.D., Detroit; Fred Freeman, M.D., Saginaw; Joseph A. Crowell, M.D., Iron Mountain; E. D. Brooks, M.D., Kalamazoo; Harry G. Berry, M.D., Macomb County; John W. Handy, M.D., Flint; A. B. Thompson, M.D., Grand Rapids; Geo. C. Hafford, M.D., Albion; and John H. Jones, M.D., Cass County.

Elected to Retired Membership John Weed, M.D., East Tawas, and A. J. Howell, M.D., Bayport (1030)

5. Adopted Resolution re death of W. C. McCutcheon, M.D., of Cass County. (1030)

6. Accepted and adopted Resolution disapproving professional relationships between physicians and cultists. (1030)

7. Accepted and adopted Resolution calling for appointment of a Special Committee to meet with the Michigan Nurses' Board re Nurses' Training Schools. (1031)

8. Accepted and adopted Resolution backing up Michigan State Board of Registration in Medicine in requiring full United States citizenship for a license to practice medicine in Michigan. (1035)

9. Presented key to former Speaker of House of Delegates, Frank E. Reeder, M.D., Flint. (1025)

*Deceased June 17, 1939.

*Members refer to pages in the November, 1938, issue of THE JOURNAL, M.S.M.S.

10. Adopted a motion that a suitable emblem be presented to Doctor Brook for his many years of service to the M.S.M.S. as a Delegate to the A.M.A. (1033)

11. Accepted and adopted recommendations that more units of the Woman's Auxiliary be organized (1019); that one of the members of the five-man Commission of the Michigan Department of Corrections be a physician (1020); that the Iodized Salt Committee be continued for another year (1020); that the use of Professional Cards in THE JOURNAL be increased (1021); that two Secretaries' Conferences (one in mid-winter, the other at the time of the annual meeting) be continued, and that the Upper Peninsula be accorded a Secretaries' Conference (1021); that changes be considered in the medical defense activity, as presented by the Medico-Legal Survey Committee (1021); that M.S. M.S. representatives to A.M.A. House of Delegates use their influence to establish a Public Relations Bureau in the A.M.A. (1021)

12. Adopted report covering regulations re awarding of certificate for completion of postgraduate work. (1028)

13. Approved principle of voluntary hospital insurance, providing it does not include services of Doctor of Medicine. (1029)

14. Accepted and adopted recommendation that the M.S.M.S. adopt in principle Recommendation IV—General Program of Medical Care as defined by the A.M.A. Sept. 17, 1938. (1029)

15. Accepted and adopted recommendation that the Committee on Distribution of Medical Care continue with more detailed studies of an acceptable voluntary group medical care program, which is to be presented at a special meeting of the House of Delegates in the near future. (1029)

16. Accepted and adopted recommendation re "Medical Aid to Medical Indigents."

(a) That a State Commission of Medical Relief be established whose function shall be purely administrative—to deal only with medically needy and indigents. The director to be a doctor of medicine licensed to practice in Michigan.

(b) That the study of details on such an indigent plan be referred jointly to the Legislative Committee and to the Committee on Distribution of Medical Care. (1029)

17. Spread a vote of thanks on its minutes to Ralph H. Pino, M.D., and the members of his Committee on Distribution of Medical Care for their great efforts in preparing their report for the House of Delegates. (1029)

18. Elected:

(a) Burton R. Corbus, M.D., Grand Rapids, as president-elect. (1034)

(b) Philip A. Riley, M.D., Jackson, reelected as Speaker. (1035)

(c) Martin H. Hoffmann, M.D., Eloise, reelected as Vice-speaker. (1035)

(d) Roy H. Holmes, M.D., Muskegon, reelected Councilor of the 11th District. (1032)

(e) Clarence D. Hart, M.D., Newberry, Councilor of the 12th District. (1032)

(f) Wm. H. Huron, M.D., Iron Mountain, Councilor of the 13th District. (1032)

(g) Henry A. Luce, M.D., Detroit, reelected Delegate to the A.M.A. (1032)

(h) Thomas K. Gruber, M.D., Eloise—reelected Delegate to the A.M.A. (1032)

(i) Frank E. Reeder, M.D., Flint—elected Delegate to the A.M.A. (1033)

(j) Claude R. Keyport, M.D., Grayling—reelected Delegate to the A.M.A. (1033)

(k) James J. O'Meara, M.D., Jackson—Alternate Delegate to A.M.A. (1034)

(l) C. S. Gorsline, M.D., Grand Rapids—reelected Alternate Delegate to A.M.A. (1034)

(m) R. H. Denham, M.D., Grand Rapids—reelected Alternate Delegate to A.M.A. (1034)

19. Voted to hold 1939 Annual Convention in Grand Rapids, Michigan. (1034)

20. Thanked Wayne County Medical Society for its excellent hospitality and arrangements. (1035)

21. Adjourned subject to call of Speaker pursuant to recommendation of Reference Committee on Report of Committee on Distribution of Medical Care as adopted by the House. (1035)

SUMMARY OF PROCEEDINGS OF SPECIAL SESSION OF HOUSE OF DELEGATES—JANUARY 8, 1939

The Special Session of the House of Delegates of the Michigan State Medical Society called pursuant to instructions of the 1938 regular session, was held in Detroit January 8, 1939. The House of Delegates:

1. Approved the principles of voluntary group hospitalization. (163*)

2. Approved the principles of voluntary group medical care, and empowered The Council in cooperation with the hospitals and civic groups to proceed with the establishment of plans embodied in the principles approved by the House of Delegates. (165)

3. Empowered The Council of the M.S.M.S. to use its judgment in the matter of cooperating in introducing necessary legislation to make it possible to legally handle group hospitalization and group medical care in Michigan. (165)

4. Accepted and adopted resolution supporting the American Medical Association. (161)

5. Accepted and adopted resolution authorizing The Council to levy a capital assessment not to exceed \$5.00 for the current year, if necessary. (161)

6. Elected: Carl F. Snapp, M.D., Grand Rapids, Alternate Delegate to the A.M.A. to fill the vacancy left by the resignation of James J. O'Meara, M.D., Jackson.

7. Adopted a motion of thanks to Ralph H. Pino, M.D., Chairman of the Committee on Distribution of Medical Care, for his "untiring efforts, his loyalty, his integrity, and his interest in the medical profession." (165)

ANNUAL REPORT OF PREVENTIVE MEDICINE COMMITTEE, 1938-39

Three meetings were held during the past year: November 13, 1938, at the Statler Hotel, Detroit; January 22, 1939, at the Statler Hotel, Detroit; and on April 16, 1939, at the Laboratories of the Michigan Department of Health, Lansing. Various activities have been considered.

1. Program of Preventive Medicine.

a. *State Meeting.* The names of several essayists were suggested by the Committee as speakers for the state meeting.

b. *Regional Conferences.* The Committee recommends that at these conferences preventive measures receive more attention.

c. *County Medical Societies* are urged to devote

*February, 1939, JOURNAL.

more meetings to subjects of preventive medicine, viz.: tuberculosis, syphilis, mental hygiene, cancer, medical education, industrial medicine, school health, maternal and infant care and heart disease.

2. *County Health Units*: Again, as in past years, the Committee wishes to stress the importance of having all counties formed into County Health Units (not practicing units) administered by a full-time Health Officer.
3. *Medical Director*: The Preventive Medicine Committee reiterates its request that funds be sought to employ a full-time medical health director whose duties shall be to bring the advances in technic of the various tests to the physician in his own office, and with groups of physicians. He should also foster a better relationship between the physicians and the local health departments.
4. *Immunization Schedule*: Revised schedule adopted by Pediatric Society and Department of Health approved.
5. *Football Injuries*: Recommended:
 - a. That more definite blanks for physical examinations be adopted.
 - b. That an x-ray of the chest of all athletes be a routine measure.
 - c. That a doctor of medicine or senior medical student be present at all games.
 - d. *Health and Hospital Insurance for Athletes*: This protection is available and is being used in some states. It is believed that if athletes were provided with some kind of insurance the companies would demand adequate medical examinations.
6. *Premature Infants*: 1,415 died in 1937. The State Department of Health is interested and is considering adoption of a transportable cabinet to cost about \$12, that can be supplied to every community.
7. *Hearing and Vision Project*: Approval was sought for a WPA project for listing hearing and vision of all school children in Michigan from third to twelfth grades. This was referred to a Sub-committee for further study.
8. *Typhoid Fever Carriers*: There are 3,000 carriers of typhoid in the state. The State Health Department presented the following plan of control: A letter canvassing the County Medical Societies for support, to be followed by an agreement on the part of individual physicians to forward to the State Department of Health specimens and other relevant data concerning any suspected carrier. The plan was approved.
9. *Pneumonia Committee*: A pamphlet was prepared and approved concerning the serum treatment of pneumonia and was distributed to every member of the Michigan State Medical Society.
10. *Degenerative Diseases*: Talks on Diabetes are being given; also lectures to graduate nurses.
11. *Advisory Committee on Syphilis*: Report given separately by this committee. Dr. L. W. Shaffer.
12. *Advisory Committee on Tuberculosis*: Report given separately by the Committee.

It is the opinion of the Preventive Medicine Committee that as a result of the attendance at all of the committee meetings of representatives of various groups interested in health the other fellow's viewpoint has been of great assistance and a much better understanding has been attained.

The Preventive Medicine Committee, therefore, gratefully acknowledges its debt to members of

those groups who gave so generously of their time and knowledge.

Respectfully submitted,
 L. O. GEIB, M.D., *Chairman*
 E. W. BLANCHARD, M.D.
 G. M. BYINGTON, M.D.
 A. L. CALLERY, M.D.
 B. H. DOUGLAS, M.D.
 DON W. GUDAKUNST, M.D.
 R. B. HARKNESS, M.D.
 PAUL H. JORDAN, M.D.
 EDGAR MARTMER, M.D.
 R. M. MCKEAN, M.D.
 F. B. MINER, M.D.
 J. J. O'MEARA, M.D.
 H. H. RIECKER, M.D.

ANNUAL REPORT OF ADVISORY COMMITTEE ON SYPHILIS CONTROL, 1938-39

Meetings of this Committee have been held during the last year, as follows:

Olds Hotel, Lansing, December 4, 1938.
 Statler Hotel, Detroit, January 15, 1939.
 Statler Hotel, Detroit, February 16, 1939.
 State Health Laboratories, Lansing, April 16, 1939.
 Capitol, Lansing (Senate Committee), May 1, 1939.
 Statler Hotel, Detroit, May 21, 1939.

This has been an active year for our Committee. Many problems concerning syphilis control have arisen. The above six meetings were called to dispose of these problems. Modification of the pre-nuptial law and preparation of a prenatal law were our most important activities.

The unsatisfactory nature of our pre-nuptial law was generally recognized. The ideal law is seemingly still to be written. We believe our law in its present form is the best now in effect. Its preparation was difficult and required much thought. It was passed by the Legislature in its present form as recommended without the change of a single word.

A pre-natal law was considered highly desirable, but not feasible this year. We were surprised to find that such a proposal was introduced in our Legislature. It was very unsatisfactory in the form introduced. Through Drs. H. A. Miller and R. S. Breakey's influence, it was withdrawn from the Committee and our substitute accepted. A concerted effort by Christian Scientists to insert a clause excluding them from its requirements was blocked by deleting provisions for treatment of positive cases, which was not needed or desirable as originally stated in the Bill. We wish to thank the Governor, our Legislature and particularly Representative John F. Hamilton, also Dr. D. W. Gudakunst and Dr. Harold A. Miller, for their valuable assistance in placing this venereal disease control law on Michigan's statute books.

Among the numerous additional problems requiring consideration, the following should be mentioned:

It is recognized that there is urgent need for state-wide activity in syphilis control. A number of County Medical Societies have outstanding programs. Our Committee has recommended that each local medical society in our State have a Committee on Syphilis Control and that the Chairman of each of these Committees be invited to meet with our State Committee annually at the time of the State Meeting. The purpose of such meetings would be to stimulate interest and coordinate efforts.

Our Committee has endorsed the proposed appointment of a permanent full-time secretary to act as field representative and consultant to the above State-wide County programs.

It has also been recommended as a part of the educational program that suitable placards of indestructible metal type be purchased by the State Health Department with federal funds for State-wide distribution in public toilets.

A meeting with a committee from the Junior Chamber of Commerce is being arranged to guide and coördinate their laudable efforts in lay educational programs.

New reporting forms for cases of syphilis, gonorrhea, and chancroid have been approved by our committee and are now being distributed by the Michigan State Health Department, as well as a separate outline accompanying Kahn reports explaining serologic interpretation.

It is hoped that we may push forward even more energetically during the coming year with our programs for lay and professional education. It is especially hoped that, with the aid of a full-time secretary, energetic programs may be started in each county medical society in the State. Two problems for the immediate future are: (a) preparing an outline of principles governing types of cases and amount of treatment indicated for approval for special certification under the revised pre-nuptial law; and (b) a revision of the outlines of treatment as recommended by our committee two years ago. For these reasons, we desire to petition the House of Delegates of the Michigan State Medical Society that our Committee be made permanent by a change in our by-laws.

Respectfully submitted,

LOREN A. SHAFFER, M.D., *Chairman*
R. S. BREAKEY, M.D.
R. H. HOLMES, M.D.
WM. A. HYLAND, M.D.
H. R. ROEHM, M.D.
C. K. VALADE, M.D.
UDO J. WILE, M.D.

ANNUAL REPORT OF ADVISORY COMMITTEE ON TUBERCULOSIS, 1938-39

The examination of school teachers to rule out tuberculosis was discussed during the year by this Committee and recommendations made to the Preventive Medicine Committee, which committee approved them as follows:

- (a) That a single flat film of the chest be made on all new teachers, the film to be interpreted by any physician acceptable to the local county medical society.
- (b) The following groups to be examined:
 - (1) All new teachers, re-examination every two years until three examinations, or until the teacher is thirty years of age;
 - (2) Any teacher who presents symptoms of tuberculosis, in the opinion of a physician or school authority;
 - (3) School bus drivers, because they come in close contact and prolonged contact with school children.
- (c) That students entering state normal schools be given routine chest x-rays to eliminate any one who plans to be a teacher who has tuberculosis.
- (d) That sympathetic coöperation of school boards be asked in the successful development of this program.
- (e) That the above program be recommended to the county medical society as a local activity and to the local health departments through the State Health Department, and through the State

Department of Public Instruction to the local education authorities.

Respectfully submitted,

BRUCE H. DOUGLAS, M.D., *Chairman*
R. B. HARKNESS, M.D.
A. W. NEWITT, M.D.
GEO. A. SHERMAN, M.D.
B. A. SHEPARD, M.D.
G. C. STUCKY, M.D.
E. R. WITWER, M.D.

ANNUAL REPORT OF THE ETHICS COMMITTEE, 1938-39

We are pleased to report that there has been no occasion for your Ethics Committee to meet on any complaint. This speaks well for the profession in such a time as this when doctors are being accused of many violations, such as restraint of trade, maintaining a monopoly and neglecting the care of the citizens of the United States.

We stand ready to tackle any problem that comes to our attention, but the complaint must be made in writing, signed by the complainant or complainants, and they must be ready to back up what they say at a meeting of the Ethics Committee.

Respectfully submitted,

HORACE W. PORTER, M.D., *Chairman*
ROBERT S. BREAKEY, M.D.
L. C. HARVIE, M.D.
LEMOYNE SNYDER, M.D.
E. D. SPALDING, M.D.
A. V. WENGER, M.D.

ANNUAL REPORT OF COMMITTEE ON MATERNAL HEALTH, 1938-39

The Committee on Maternal Health felt that a study of the obstetric and newborn services rendered by the licensed maternity hospitals of the State of Michigan would be valuable and informative.

After consultation with the State Welfare Department a questionnaire on "Facilities and Practices in the Hospitals Licensed by the State Welfare Department for Maternity Care Under Act 363 P. A. 1913" was prepared.

This questionnaire, which was approved by the Committee, has been sent by the State Welfare Department to every licensed maternity hospital in Michigan. The filling out of this questionnaire is being given personal attention by individuals throughout the state selected by the State Welfare Department.

Inasmuch as there are approximately 300 licensed maternity hospitals in Michigan, and inasmuch as each questionnaire occupies eight typewritten pages, the Committee feels that a proper analysis of this survey, when submitted, may furnish valuable data and material for certain recommendations which the Committee hopes to submit at the annual meeting. At the present time, these questionnaires have not all been collected.

The Committee, being aware of the high incidence of premature, immature and neonatal deaths that still occur, has been interested in having procured for general use, if possible, a better incubator service for hospital use, and a portable and inexpensive one for home use. Dr. Lillian Smith of the Michigan Department of Health is collaborating with Mr. Henry Ford's chief engineer and with two Detroit pediatricians in an attempt to have manufactured an incubator which will be so constructed as to efficiently control heat and humidity and so arranged that oxygen and carbon dioxide can be administered in definite percentages. Dr. Frank Van

Schoick, a member of our Committee, has also been working for some time on an incubator with all modern improvements and at the present time it is being used in one of the hospitals in Lansing. It is hoped that these incubators can be manufactured at a minimum expense.

The Committee has discussed informally the common tendency toward overnarcotization of women in labor, and, while no definite conclusions were reached, the possibility of the unfavorable effect upon mothers who receive too much sedation was considered and the possibility of serious damage to the newborn was believed to be important enough to demand further investigation and study.

THE JOURNAL of the Michigan State Medical Society has offered to publish, each month, brief articles on maternal health submitted by members of the Committee; a few of these articles have been published and the Committee will continue to take advantage of this method of publicity.

The Committee is happy to state that there is a Committee on Maternal Health in every County Medical Society in Michigan and that some of these committees are being extremely active in assuming leadership for the promotion of better obstetric care and in making mortality studies in their own communities.

The State Committee at all times has had splendid coöperation from the president and other executive officers of the State Medical Society and desires, at this time, to express its appreciation of this help.

Respectfully submitted,

ALEXANDER M. CAMPBELL, M.D.,
Chairman

W. C. C. COLE, M.D.

HAROLD A. FURLONG, M.D.

ROCKWELL M. KEMPTON, M.D.

LOUIS J. LIPSCHUTZ, M.D.

NORMAN MILLER, M.D.

BENJAMIN H. PRIBORSKY, M.D.

WARD F. SEELEY, M.D.

JOSEPH H. SHERK, M.D.

FRANK VAN SCHOICK, M.D.

HAROLD W. WILEY, M.D.

ANNUAL REPORT OF COMMITTEE ON MENTAL HYGIENE, 1938-39

The Committee has met officially only a few times, due to the wide geographical distribution of its members. Consequently, the majority of the Committee's work has been done through the various means of communication—primarily, by correspondence.

In its first meeting of the year, the members of the Committee present decided that the major activity of the Committee should be, insofar as possible, a campaign of education of the subject matter pertaining to Mental Hygiene to the lay public and especially to our own medical profession. Consequently, a survey was made, and thirteen focal points in the state were found where capable speakers on this subject matter were located. These focal points were willing to coöperate with our committee, to send speakers into their vicinity. All of the adjoining County Medical Societies to these points were notified, through the Executive Office, of the availability of such speakers. Unfortunately, the requests for same were very, very few.

Your Committee has also cooperated with the Joint Committee on Health Education, and with the Extension Service of the University of Michigan, in affording speakers at various points in the state for lay groups.

Your committee is happy to state that it was able to fill every request that was made of it, through the year.

Your committee feels that it has carried on its work in the educational field with success, and is of the opinion that the prime activity of such committee should continue along that same line.

Respectfully submitted,

MARTIN H. HOFFMANN, M.D.

Chairman

R. GORDON BRAIN, M.D.

E. H. CAMPBELL, M.D.

E. A. CHRISTIE, M.D.

R. L. DIXON, M.D.

JOSEPH S. MCCARTHY, M.D.

THEOPHILE RAPHAEL, M.D.

PERRY C. ROBERTSON, M.D.

R. W. WAGGONER, M.D.

ANNUAL REPORT OF RADIO COMMITTEE, 1938-39

During the season of 1938-39, the Michigan State Medical Society sponsored twenty-six broadcasts, given over a period extending from November 1, 1938, through March 27, 1939. There may have been additional broadcasts out in the state. Of these twenty-six broadcasts, seven were general (two pertaining to medical economics), six medical, seven surgical, two dental, one dermatological, and one otological. Of the twenty-six broadcasts, four were taken from a series supplied by the A.M.A.; one was a short interview over station WWJ, Detroit, under the weekly feature, "Radio Extra," and twenty-one were interviews or talks prepared by Detroit physicians and broadcast over CKLW. Through the coöperation of the Joint Committee on Health Education (Dr. C. A. Fisher, Secretary) mimeographed copies of these twenty-one broadcasts were distributed to the chairmen of thirteen county medical societies to be broadcast from their local stations. These stations were as follows:

Wayne—Detroit—CKLW
Bay—Bay City—WBCM
Calhoun—Battle Creek—WELL
Genesee—Flint—WFDF
Houghton-Baraga-Keweenaw—Calumet—WHDF
Ingham—Lansing—WJIM
Jackson—Jackson—WIGM
Kalamazoo—Kalamazoo—WKCD
Kent—Grand Rapids—WOOD
Marquette-Alger—Marquette—WBEO
Muskegon—Muskegon—WKBZ
St. Clair—Port Huron—WHLS
Chippewa-Mackinac—Sault Ste. Marie—

The Committee would like to express to Dr. Fisher and the Joint Committee on Health Education its appreciation for their invaluable coöperation. Without their assistance, it would be an onerous task to mimeograph and distribute the talks to the various local stations.

The kind coöperation and support given by the physicians and dentists who participated is appreciated. All who took part, enthusiastically prepared their material and contributed valuable time to go to the broadcasting station in Windsor. The CKLW programs were broadcast, with one or two exceptions, Monday evenings at 7:45 P. M.

Appreciation is also expressed to all the radio stations throughout the state, who kindly contributed their time to this program, and to the members of the Michigan State Medical Society who participated.

The Committee suggests that some thought be given by next year's committee to the dramatization of an occasional broadcast. This type of pres-

entation of certain medical problems might have a greater appeal to the radio audience.

Respectfully submitted,

G. C. PENBERTHY, M.D., *Chairman*.
F. M. DOYLE, M.D.
WM. S. GONNE, M.D.
T. R. REES, M.D.
D. F. SCOTT, M.D.
C. F. SNAPP, M.D.

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M.S.M.S. RADIO TALKS, 1938-39

Broadcasts throughout the state—speaker unknown:
Fall Health Hazards, AMA (WJIM). Date sent from extension office, Oct. 29, 1938.
Headache, AMA, Nov. 1, 1938.
Communicable Diseases Among School Children, AMA, Nov. 1, 1938.
Infantile Paralysis, the Chief Cause of Orthopedic Defects, AMA, Jan. 25, 1939.
Radio Extra, WWJ, Dr. Ralph Pino, Jan. 26, 1939.

Broadcasts over CKLW

Nov. 1, 1938—What to Do When Burned—Dialogue, Dr. Charles N. Weller and Dr. Grover C. Penberthy.
Nov. 7, 1938—Asthma-Talk, Dr. S. J. Levin.
Nov. 14, 1938—Conservation of Hearing—Questions and Answers, Dr. William S. Gonne.
Nov. 21, 1938—Diseases of the Skin in Relation to General Health, Dr. Harther L. Keim.
Nov. 28, 1938—The Significance of Bleeding from the Lower Intestinal Tract—Questions and Answers, Dr. L. J. Hirschman.
Dec. 5, 1938—What is a Goitre?—Questions and Answers, Dr. Eugene Osius.
Dec. 12, 1938—Plastic Surgerv. Dr. Claire Straith.
Dec. 19, 1938—Pneumonia, Dr. Alvin Price.
Dec. 26, 1938—Health and High Blood Pressure, Dr. Thomas McKean.
Jan. 2, 1939—No talk.
Jan. 9, 1939—Research in Medicine, Dr. Clifford D. Benson.
Jan. 16, 1939—Dentistry's Part in Public Health, Dr. K. R. Gibson.
Jan. 23, 1939—The Michigan Group Hospital and Medical Care Plan, Dr. R. Lee Laird.*
Jan. 30, 1939—Indigestion or Stomach Trouble, Dr. Claire F. Vale.
Feb. 6, 1939—Discussion of Recent Dental Lectures and Examinations in Detroit Schools. Facts about Dentistry for Children, Dr. C. W. Wilson.
Feb. 13, 1939—The Parole Clinic at Eloise Hospital, Dr. Martin Hoffman.
Feb. 20, 1939—Medicine and History, Dr. Charles Dutchess.
Feb. 27, 1939—The Story of Diabetes, Dr. George Thosten.
Mar. 6, 1939—Marvels of Modern Surgery—Dialogue, Dr. Roy D. McClure and Dr. John Hartzell.
Mar. 13, 1939—Legislative Aspects of Medical Care Plans, Dr. R. Lee Laird.*
Mar. 20, 1939—Obesity, Its Cause and Treatment, Dr. Neil Whalen.
Mar. 27, 1939—Low Back Pain, Dr. Frederick C. Kidner.

ANNUAL REPORT OF ADVISORY COMMITTEE TO WOMAN'S AUXILIARY, 1938-39

The advisory committee to the Woman's Auxiliary, Michigan State Medical Society, held one general meeting at Saginaw, January 22, 1939, at which the following recommendations were made:

1. That a budget system be worked out for auxiliary activities.
2. That a permanent secretary is advisable.
3. That organization be stressed.
4. That the program of Public Relations be continued.

Preceding and following this general meeting, your chairman met with the officers of the Auxiliary upon several occasions. Fortunately, much of the committee's work was able to be handled through correspondence.

Your committee is pleased to report that this has been one of the most successful years in the history of the Auxiliary, and great credit must be given its president, Mrs. Paul R. Urmston of Bay City, for her untiring efforts and able leadership. She had associated with her as chairmen of the various

*Deceased June 17, 1939.

departments a very capable group of workers, which enabled Michigan to take second place in organization activity throughout the nation!

Your committee feels that this has been a most important contribution to the State Medical Society, and we wish, at this time, to pay tribute to the Woman's Auxiliary for this enviable record. We welcome the following new Auxiliaries:

Genesee County
Luce County
St. Clair County
Van Buren County
Delta-Schoolcraft County
Houghton-Baraga-Keweenaw County
Grand Traverse-Leelanau-Benzie County

Wherever the new auxiliaries have been formed, a better and more harmonious functioning of the society can be noted and it seems to us that the time has arrived when an organized solid front must be maintained for the betterment of the profession as a whole. We believe that the members of the unorganized counties do not wish to receive the benefits of the efforts of the organized counties without contributing something toward the general cause.

We earnestly urge those counties not organized to do so this next year. Your support is needed.

A budget committee was named with Mrs. Elmer L. Whitney, of Detroit, as chairman. This committee has formulated a workable budget plan which will be submitted to the Auxiliary for its approval and adoption.

The Public Relations activities of the Auxiliary have been of untold value. The sponsoring of meetings in relation to medical subjects before Parent-Teacher groups, women's clubs, dinner clubs, et cetera, has enabled them to disseminate true knowledge to hundreds of laymen who otherwise might remain misinformed. The interest shown in these subjects is attested by the great amount of discussion brought forth at every meeting which your chairman was privileged to attend. The importance of continuing these activities cannot be over-emphasized.

May we call to your attention the advisability of the State Society formulating a directional program for all Auxiliary activities, instead of the Auxiliary getting its program exclusively through national Auxiliary headquarters. We urge that this be given consideration.

The advisory committee also wishes to invite to your attention the fact that this is your Auxiliary and a definite branch of the State Society, that the members thereof are willing to do even more than their share in working for the betterment of your profession, and to help solve the social ills of your community.

We sincerely urge and request that you give them your whole-hearted encouragement and coöperation in their efforts to help you.

Respectfully submitted,

L. C. HARVIE, M.D., *Chairman*
F. T. ANDREWS, M.D.
WM. M. BRACE, M.D.
GEORGE M. WALDIE, M.D.
H. W. WILEY, M.D.
H. S. COLLISI, M.D., *Advisory*

ANNUAL REPORT OF MEMBERSHIP COMMITTEE, 1938-39

Because of the long distances separating members of the Committee, no meeting has been held. All members have been kept in touch with the committee's work by correspondence.

In January, letters were sent to membership chair-

men (or secretaries) of all county societies, offering the assistance of the state committee in any campaign for increased membership. Attention was called to the adequate supply of excellent folders prepared by the state society setting forth advantages of membership.

The county society chairmen were asked to comment on their activities and let us have a list of eligible non-members in their territory. This was done in many cases, and a letter from the state society was sent to all names appearing on these county lists.

At the present date (June 20, 1939), membership in the Society is 4,054 as compared with 3,785 on the same date in 1938; with 3,715 in 1937; and with 3,362 in 1936. We feel the increase is very satisfactory, since most eligible physicians are already members.

We have made no effort to "high-pressure" prospective members. Since membership in the Society is an honor and has tangible advantages, it seems sufficient to point out the desirability of membership status to eligible non-members in a dignified way.

We wish to thank county membership chairmen for their coöperation, and Dr. L. Fernald Foster, Mr. Wm. J. Burns, and the executive office staff for their wonderful assistance.

Respectfully submitted,

CHAS. E. DUTCHESS, M.D., *Chairman*.
M. S. BALLARD, M.D.
G. J. BAILEY, M.D.
AARON D. RIKER, M.D.
GEORGE A. SHAW, M.D.

ANNUAL REPORT OF THE PUBLIC RELATIONS COMMITTEE, 1938-39

The Public Relations Committee respectfully makes its annual report to the House of Delegates.

The State Society (its County Societies and Councilor districts) was apportioned to the various members of the Committee who have made contacts with the units—integrating the several projects referred from the Executive Committee of The Council and other committees—and have stimulated the members to a better appreciation of the activities of organized medicine in Michigan.

The major activity, within the State Society, of a Public Relations Character during the past year, was that of legislation. By an established precedent this function, due to the type of publicity necessary, was executed directly by the Legislative Committee and the Executive office.

The Committee encouraged the completion of the A.M.A. Survey as conducted in Michigan.

Contact has been maintained with the Executive Committee in its development of a Voluntary Group Medical Service Plan. If and when the details of this activity have been approved, an intensive publicity and educational program for the members of the State Society and the public will be inaugurated.

The Committee records with much regret the sudden death of one of its members, Dr. C. D. Hart of Newberry, who, in charge of the Public Relations activities in the Upper Peninsula, did a splendid work among his counties.

RECOMMENDATIONS:

The Committee recommends particularly that:

1. A sustained interest be maintained by the members of the M.S.M.S. in activities of organized medicine, both in Michigan and in the nation.
2. Special study be given Michigan's plan of Group Medical Care.
3. The best quality of practice be maintained by

participation in the various Postgraduate programs.

4. County Societies, through a Speaker's Bureau, assume responsibility for good local Public Relations.
5. The members of the M.S.M.S. acquaint themselves, through the M.S.M.S. JOURNAL and the various county medical bulletins, with the many projects of the State Society and lend their active aid and constructive criticisms to the officers and committeemen charged with the evolution of these projects.

Respectfully submitted,

L. FERNALD FOSTER, M.D., *Chairman*
A. F. BLIESMER, M.D.
W. M. BRACE, M.D.
A. E. CATHERWOOD, M.D.
C. G. CLIPPET, M.D.
H. S. COLLISI, M.D.
L. E. HOLLY, M.D.
D. M. HOWELL, M.D.
H. L. MORRIS, M.D.
A. W. STROM, M.D.

ANNUAL REPORT OF CANCER COMMITTEE, 1938-39

During the year, the Cancer Committee has held five meetings, on November 16 and December 13, 1938, February 6, May 3, and June 21, 1939. At the first meeting, there were six members in attendance; at the second, six; at the third, the full committee (7); at the fourth, five; and at the fifth, five.

The Council voted the Cancer Committee the same amount of funds to draw on that was voted last year, and in addition the sum of \$500 toward the salary of a Field Representative.

The work of the Committee has been along the following lines:

1. Forty were appointed as members of the Speakers' Bureau. Most of these men had served the Committee in previous years and a few new members were added.

2. A few talks to laymen on cancer have been arranged directly through the Cancer Committee. Nearly all talks, however, have been arranged through the Joint Committee on Health Education, Ann Arbor. The Joint Committee has made use of the Speakers' Bureau for 24 lectures.

3. The Committee has gone no further this year in the matter of pamphlet publicity, but several articles have been written for publication in the JOURNAL of the Michigan State Medical Association or are in preparation.

4. Although it has not had the directional relationship this year that it had last year, the Cancer Committee has worked in sympathetic and, we hope, helpful coöperation with both the Wayne County and the out-state committees of the Women's Field Army against Cancer, a subsidiary of the American Society for the Control of Cancer.

5. The chief project of the Cancer Committee for this year has been the appointment of a Field Representative for one year, in the person of Clifford H. Keene, M.D. Starting in the upper peninsula the first of July, 1939. Dr. Keene will gradually visit all parts of the state and make contacts both with officers of county societies and with individual practitioners in their offices and in various hospitals of the state. The main object of Dr. Keene's work will be as follows: Personal contact with as many individual physicians as possible; to discuss with them the common problems in the management of neoplasms; the technic and advisability of biopsies; the technic of special diagnostic examinations; early signs and symptoms, statistics, and prognosis; seeing

cancer patients with the local physicians, when requested; visiting hospitals and clinics to observe the treatment and handling of cancer patients, and to offer assistance or advice as needed and accepted; to attend the meetings of hospitals, clinical and medical groups when possible, and to be available at all times for comment or advice; to investigate such activities of quack cancer cures as may come to his notice; to appraise in a general way the quality of treatment offered the patient with cancer in various localities of the state. Dr. Keene will report on his work at frequent intervals to the Chairman of the Cancer Committee through the main office of the Society in Lansing. The Committee have chosen him after careful consideration. They have a high opinion of his training and abilities, and high hopes for success in the work which he is to inaugurate.

In closing, the Cancer Committee wishes, through its chairman, to thank not only the President of the Society and members of The Council for their understanding, coöperation and help throughout the year but also Dr. L. Fernald Foster, Secretary of the Society, and Mr. William J. Burns, Executive Secretary, for their advice and help in the execution of various details of the Committee's activities.

Respectfully submitted,

ARTHUR B. MCGRAW, M.D., *Chairman*

F. A. COLLIER, M.D.

DON W. GUDAKUNST, M.D.

WM. A. HYLAND, M.D.

A. H. KRETCHMAR, M.D.

H. J. VANDENBERG, M.D.

C. V. WELLER, M.D.

REFERENCE COMMITTEES

Credentials Committee

P. L. Ledwidge, M.D., *Chairman*

E. O. Foss, M.D.

John A. Wessinger, M.D.

On Officers' Reports—Parlor A

F. J. O'Donnell, M.D., *Chairman*

Robert B. Harkness, M.D.

L. H. Day, M.D.

A. E. Catherwood, M.D.

W. B. Cooksey, M.D.

On Reports of The Council—Parlor B

O. D. Stryker, M.D., *Chairman*

H. W. Wiley, M.D.

A. L. Callery, M.D.

R. L. Wade, M.D.

A. V. Wenger, M.D.

C. F. Brunk, M.D.

E. D. Spaulding, M.D.

On Reports of Standing Committees

Mezzanine Lounge

C. E. Umphrey, M.D., *Chairman*

W. Joe Smith, M.D.

A. T. Hatford, M.D.

R. E. Spinks, M.D.

G. H. Southwick, M.D.

H. Huntington, M.D.

C. F. DeVries, M.D.

S. W. Insley, M.D.

H. W. Plaggemeyer, M.D.

Geo. J. Curry, M.D.

Harvey Hansen, M.D.

On Reports of Special Committees—Red Room

A. L. Arnold, Jr., M.D., *Chairman*

C. E. Dutchess, M.D.

R. C. Perkins, M.D.

W. C. Ellet, M.D.

R. J. Hubbell, M.D.

Joseph H. Andries, M.D.

W. H. Welch, M.D.

On Amendments to Constitution and By-Laws

Parlor D

E. A. Oakes, M.D., *Chairman*

Dean Myers, M.D.

W. D. Barrett, M.D.

J. J. O'Meara, M.D.

H. F. Dibble, M.D.

On Resolutions—Room 128

C. S. Kennedy, M.D., *Chairman*

R. M. McKean, M.D.

C. R. Keyport, M.D.

David I. Sugar, M.D.

A. W. Chase, M.D.

1939 EXHIBITORS

Exhibitors at the 1939 Michigan State Medical Society Convention, to be held in the Civic Auditorium, Grand Rapids, September 19, 20, 21 and 22, include:

Abbott Laboratories	B-13
A. S. Aloe Company	C-12
Arlington Chemical Co.	D-12
Bard-Parker Co., Inc.	F-15
Barnett Laboratories	A-4
Barry Allergy Laboratory	F-5
W. A. Baum Co.	D-7
Becton-Dickinson & Co.	E-18
Boericke & Tafel	F-3
Borden Sales Co., Inc.	F-19
The Burrows Company	D-20
Cameron Surgical Specialty Co.	A-6
S. H. Camp Co.	B-2
Coca-Cola Co.	F-12
Cottrell-Clarke, Inc.	F-18
R. B. Davis Sales Corp.	F-20
Dazor Mfg. Co.	B-6
Detroit X-Ray Sales Co.	B-11
Detroit First Aid Co.	A-7
Dictaphone Sales Corp.	A-9
Dietene Company	B-14
Duke Laboratories, Inc.	B-3
Ediphone Company	E-7
Evans-Sherratt Co.	A-5
H. G. Fischer & Co.	F-4
General Electric X-Ray	F-11
Gerber Food Products	E-11
Hack Shoe Company	B-16
Hanovia Chemical Co.	B-15
J. F. Hartz Co.	F-7, F-8
H. J. Heinz Co.	E-2
Holland-Rantos, Inc.	B-10
Horlick's Malted Milk Corp.	D-6
G. A. Ingram & Co.	D-1, D-2, D-3
Jones Metabolism Equip. Co.	C-18
Jones Surgical Supply Co.	F-1
A. Kulman Co.	C-3
Lea & Febiger	F-13
Lederle Laboratories	B-8
Libby, McNeill & Libby	C-5
Liebel-Flarsheim Co.	C-6
Eli Lilly & Co.	B-4
J. B. Lippincott Co.	E-1
M & R Dietetic Laboratories	F-14
Mead Johnson & Co.	C-1, C-2
Medical Arts Surgical Supply Company	C-7, C-8, C-9
Medical Case History Bureau	E-19
Medical Protective Co.	C-21
Medical Supply Corp.	E-3
The Mennen Company	D-21
Merck & Company	C-20
Wm. S. Merrell Co.	D-11
Michigan Magnetic Mineral Water Company	F-6
C. V. Mosby Company	F-21
Muller Laboratories	C-19
Parke-Davis & Co.	C-13, C-14, C-15
Pelton & Crane	B-12
Pet Milk Sales Co.	E-10
Petrolagar Laboratories	E-9
Philip Morris Co., Ltd.	F-10
Physicians Equip. Exchange	F-16
Professional Management	A-3
Ralston Purina Co.	C-17
Randolph Surgical Supply Co.	A-10
E. J. Rose Mfg. Co.	B-9
S. M. A. Corporation	E-8
Schering Corporation	D-5
W. B. Saunders Co.	A-2
Scientific Sugars Co.	F-17
Sharp & Dohme	A-8
Smith, Kline & French Labs	B-7
C. M. Sorensen Co.	A-1
Frederick Stearns & Co.	C-10, C-11
E. R. Squibb & Sons	D-4
Vernor's Ginger Ale	C-4
Wall Chemical Co.	B-5
Westinghouse X-Ray Co.	C-16
Winthrop Chemical Co.	D-10
John Wyeth & Bros., Inc.	C-22, C-23
Zimmer Company	F-2
Zimmer Manufacturing Co.	B-1

Your patronage of these friends who are supporting the Michigan State Medical Society is earnestly recommended. On the other hand, tell the detail men who visit you whose organizations are not listed above, about the convention and exhibition put on by the Michigan State Medical Society and invite them to participate as exhibitors.

President's Page

AT THE special session of the House of Delegates in January, 1939, the President of the Society stated to the House of Delegates that no system of medical service on prepayment plan would be instituted without being again presented to them.

That was a pledge given that will be kept.

Plans and gross details of the organization of a Medical Service Corporation will be presented to the House of Delegates at the meeting in Grand Rapids in September. The House of Delegates represents the Society. The action of the House of Delegates will be final.

Each and every member of the House owes it to the organization that he thoroughly inform himself on the subject as rapidly as possible. The time for delay has passed. The decision must be one way or the other. Nothing can be gained by procrastination. Either accept or fully reject.

P.S. The Grand Rapids meeting will be the biggest and best ever. I'll be seeing you.

In all sincerity,



President, Michigan State Medical Society.

Department of Economics

L. FERNALD FOSTER, M.D., Secretary

THE GOVERNOR CONGRATULATES YOU

GOVERNOR DICKINSON, in signing the voluntary group medical care and group hospitalization bills on May 17, issued the following congratulatory message to the sponsors of these two progressive measures—the Michigan State Medical Society and the Michigan Hospital Association:

I sign these bills with much satisfaction because they form the foundation of a new service which will afford to families of moderate income the assurance of adequate medical attention and hospitalization.

That numerous "in-between" group, neither poverty-stricken nor wealthy, has existed in a sort of no-man's land. It could not go on relief, nor could it afford the fees of physicians and surgeons and the charges of hospitals, with the result that unpaid doctor and hospital bills have become common burdens to patients and physicians alike. To such an extent has this deplorable condition prevailed, that it has been frequently said that the blessings of health are reserved for those with the ability to pay, or those who can obtain free service from the State or local government. The demand for socialized medicine was the natural outgrowth of this widespread complaint.

We meet this situation now by adopting a system that enables a family to pay a low monthly charge for voluntary medical insurance, reserving to itself the right to the services of a practitioner of its own choice. The medical profession and the hospitals are to be congratulated on their progressive spirit in solving a most difficult situation in this public-spirited way.

SPECIAL LEGISLATIVE SESSION INEVITABLE

FAILURE of legislative leaders to come anywhere near an agreement in the solution of the welfare-education finance problem makes a special session of the Michigan legislature a certainty. The State will not be able to meet its payrolls, much less its current bills, if this financial tangle is not solved in the near future.

The welfare problem, including appropriations under the afflicted and crippled child laws, are matters of particular concern to hospitals and the medical profession.

The afflicted and crippled child appropria-

tion of \$800,000.00 represents a cut of 73 per cent in this important State service.

Last year hospitals received 77 per cent of afflicted-crippled child moneys; physicians received 23 per cent. Hospitals have good reason to make strenuous objections against the drastic curtailment of a necessary service because it offers a serious problem to the continued operation of some institutions.

Reconsideration by the legislature must be made not only concerning the appropriation to provide for the next two fiscal years, but also of the appropriation to fully pay off the deficiency of \$1,200,000.00. This work was ordered by the State for wards of the State. The hospitals and physicians who gave the service must not be forced to wait unduly for their recompense.

NEW WELFARE LAW

THE officers of every county medical society should contact their board of supervisors *at once* to discuss and urge the creation of a county or district division of medical care, headed by a doctor of medicine, with an advisory committee consisting of one doctor of medicine nominated by the county medical society; one dentist nominated by the dental society; and one druggist nominated by the pharmaceutical association (as per Section 55-k of Senate Enrolled Act 137). Home and office attendance of welfare patients is allowed and the private physician-patient relationship shall be maintained, according to the new law.

FIELD REPRESENTATIVES

THE appointment of Field Representatives by the Michigan State Medical Society, in the various specialties of medicine and surgery, is another forward step in post-graduate medicine in Michigan. The first of these appointments was in the field of

Obstetrics and Maternal Health. The latest addition is in the field of Cancer. The Michigan State Medical Society is now considering similar appointments in the specialties of Pediatrics and Venereal Diseases.

The Field Representatives, who spend several weeks in a county, are carrying to the busy practitioners the latest in diagnosis and treatment of those conditions arising in their special field of training. These physicians are teachers and not practitioners. Their contacts are made only through the organized county medical units and their services consist of lectures, hospital staff conferences, personal interviews with physicians, small group conferences and informal association with the physicians at the latter's request. These teachers have no function in the private practice of medicine, and render their consultant service in such a manner as not, in any way, to disturb the relationship existing between physicians in their communities.

The establishment of these Field Representatives in Michigan is as unique as the Michigan plan of post-graduate education. It brings modern technic of practice to the physician's office and to his community. It enhances the endeavor of organized medicine to bring the finest quality of practice, through the family physician, to every citizen of Michigan. It is a partial

answer to the proponents of a social scheme of medicine.

Dr. Alexander Campbell and Dr. C. E. Folsome are serving, for the Michigan State Medical Society, as Field Representatives in Obstetrics and Maternal Health. Recently, approval was given to the appointment, by the Cancer Committee, of Dr. Clifford H. Keene as Cancer representative, with later appointments in Pediatrics and Venereal Diseases being planned.

These appointments represent an increased interest on the part of the State Society, through its various committees, to serve to the greatest extent its forty-three hundred members. The policies and plans of the various Field Representatives are arranged and supervised by a committee of the Michigan State Medical Society.

These projects can serve their best purpose, however, when and if the profession of Michigan coöperates to the fullest extent and avails itself of these services.

COUNCIL AND COMMITTEE MEETINGS

1. Wednesday, June 7, 1939—Joint Committee on Health Education—Michigan Union, Ann Arbor—12:15 p. m.

2. Wednesday, June 21, 1939—Cancer Committee—Woman's Building, Ann Arbor—6:30 p. m.

3. Thursday, June 22, 1939—Executive Committee of the Council—Hotel Statler, Detroit—2:00 p. m.

Executive Committee of the Council

June 8, 1939

HIGHLIGHTS:

1. Articles of Incorporation of "Medical Security of Michigan, Inc." studied for presentation to Michigan Insurance Commissioner. By-laws and other matters in connection with Michigan's new voluntary group medical care plan were considered.
2. Conference with Governor re Afflicted-Crippled Child financing problem was authorized.
3. Activity by county medical societies urged in connection with early development of medical welfare programs in Michigan's eighty-three counties, in accordance with new Social Welfare Act.
4. Warning of smallpox increase given.

1. *Roll Call.*—The meeting was called to order at 2.30 p. m. in Hotel Porter, Lansing, by Chairman Urmston.

2. *Minutes.*—The minutes of the meeting of May 17 were read and approved.

3. *Financial Report.*—The monthly financial report was studied, as was the comparison of the income and expenses with the budget for the first 4 months of 1939. Bills Payable were ordered paid on motion of Drs. Carstens-Haughey. Carried.

The report on bonds was studied.

4. *Medical Security of Michigan, Inc.*—The draft of the proposed Articles of Incorporation was given study by the members of the Executive Committee. It was recommended that the original incorporators should pick the first Board of Directors, which would serve until the House of Delegates of the M.S.M.S. (which would be part of the membership of the corporation) met in 1940, when said membership would be entitled to vote for one-third of the Directors from a list of nominees of two names for each vacancy submitted by the Board of Directors. Other changes were recommended, and the matter is to be prepared for final presentation at the meeting of the Executive Committee on June 22.

Further discussion on voluntary non-profit group medical care plans brought out the necessity for three types of information: (a) the legal; (b) that of an insurance actuary; and (c) sociologic information and investigation. The skeleton draft of the by-laws was discussed. The matter of fee schedules and the selection of lay members of the Board of Directors was referred to the Committee on Distribution of Medical Care.

Dr. Cummings presented a report on the study of voluntary group medical care plans made by the Washtenaw Committee, and requested that the M.S.M.S. coöperate with the Washtenaw County Medical Society and the University of Michigan in obtaining up-to-date statistics re rates. This was thoroughly discussed. Motion of Drs. Brunk-Haughey that the M.S.M.S. coöperate along the lines recommended by Dr. Cummings. Carried unanimously.

5. *Afflicted Child.*—The Executive Committee of The Council, upon invitation, attended a meeting of the Board of Directors of the Michigan Hospital Association (held in the Porter Hotel, Lansing). The two groups discussed Senate Enrolled Act 162, concerning the policy of the State with reference to afflicted children, in which the hospital per diem rate is cut from \$4.50 to \$3.50 and the surgeon's top fee is cut from \$75.00 to \$50.00; also the appropriation of \$800,000.00 per annum (which is only 29% of the annual cost for 1937-38) is to be allocated to the counties on the basis of 75% population and 25% need.

Motion of Drs. Carstens-Brunk that the Executive Committee of the M.S.M.S., having discussed the matter of the above discrepancy, request the Secretary to transmit a message to the Governor to request the privilege of conferring with him on this matter.

The Secretary reported that the Governor's office would be glad to confer on this matter. The Chair thereupon appointed Drs. H. A. Luce and Harold A. Miller to meet with the Governor concerning this problem.

The subsequent report of Drs. Luce and Miller (after a conference with the Governor's legal advisor) was to the effect that Senate Enrolled Act No. 162 would undoubtedly be signed by the Governor, but that the M.S.M.S. should place its objections in writing, and same would be presented to the Governor for his study at the time he considers the signing of the bill. Motion of Drs. Carstens-Riley that the Chairman and the Executive Secretary prepare the necessary material and present same to the Governor. Carried unanimously.

Drs. Luce and Miller reported that they also had visited the Auditor General's office, in company with Mr. Robert G. Greve, Secretary of the Michigan Hospital Association, re the matter of payment of the deficiency appropriation of moneys to hospitals and physicians. Mr. Hartman of the Auditor General's office stated that both would be paid on a 50-50 basis, pro rata.

6. *State Health Commissioner.*—Dr. D. W. Gudakunst reported on the care of infantile paralysis cases in Michigan, and the use of the family physician. He was advising the federal government that Michigan has the personnel, and all it needs is the money.

Dr. Gudakunst also mentioned the prevalence of smallpox in certain areas of Michigan and the necessity for vaccination, and suggested a statement to the profession. Motion of Drs. Carstens-Brunk that Dr. Gudakunst be invited to use the M.S.M.S. Secretary's Letter and the M.S.M.S. JOURNAL in order to send a message to the profession. Carried unanimously.

7. *Medico-Legal.*—Letter from Dr. Wm. R. Torgerson resigning as Chairman of the Medico-Legal Committee was presented by Dr. Urnston. Motion of Drs. Brunk-Riley that Dr. Torgerson's resignation be accepted. Carried unanimously.

Motion of Drs. Haughey-Carstens that Dr. S. W. Donaldson of Ann Arbor be chosen as Chairman of the Medico-Legal Committee. Carried unanimously.

The appointment of another member to the Medico-Legal Committee was postponed until the next meeting.

Special Committee on Medico-Legal Activity (Drs. Holmes, Moore, Andrews).—Dr. Holmes reported for the Committee and recommended certain changes in the by-laws to eliminate the medico-legal set-up, except as advisory. This was discussed, and motion made by Drs. Carstens-Brunk that the report be received and be referred to the Council at its August meeting. Carried unanimously.

8. *Joint Committee on Health Education.*—Dr. Luce and Dr. Miller reported on the meeting in Ann Arbor on June 7: Dr. Corbus was reelected Chairman, and Dr. Luce was made a member of the Board of Directors.

9. *Legislative Committee.*—This report of the 1939 legislative activity was given by Dr. Miller, as well as report on Governor's appointments to the Basic Science Board. Motion of Drs. Carstens-Haughey that the Legislative Committee report be accepted and that the suggestion that each county medical society be advised to contact Boards of Supervisors to arrange for a medical set-up in the new county welfare department, with a doctor of medicine in charge, be adopted. Carried unanimously.

10. *Advisory Committee on Medical Service Plans.*—Motion of Drs. Carstens-Haughey that the Chairman of the Council, the President and the Secretary of the Society be requested to present names at the next meeting of the Executive Committee for consideration and the appointment of an advisory committee on medical service plans. Carried unanimously.

11. *Adjournment.*—The meeting was adjourned at 11:55 p. m.

WELFARE REORGANIZATION LAW

Importance of Medical Phases of Welfare Recognized in Appointment of Doctor of Medicine to Commission

Out of a maze of overlapping, haphazard and even contradictory laws and practices, some of which lead back to the early English poor laws, the state legislature has sought through enactment of *one* general measure to consolidate the major welfare activities of federal-state and county-city agencies.

The welfare reorganization act (Senate bill No. 129, Enrolled Act 137), though hardly accepted as a perfect work, establishes a pattern generally believed to approach the conception of modern-day social economic need.

This act places responsibility for administration of all general categories of public relief under one central, state commission appointed by the Governor of the State, an elective officer, representing at least two of the major political parties, subject to confirmation by the state senate.

The bill provides for one central county board (or district board) responsible both to the state and the local county authorities, which county board shall administer local relief.

Exceptions are numerous, but generally the act as adopted on the final active legislative day of the 1939 regular session does centralize responsibility. If emergencies arise, a few officials, easily located, may be appealed to and held responsible.

Abolishes Present Bureaus

The welfare reorganization act specifically abolishes the present emergency welfare administration, in existence since 1933, the State Welfare Commission and Welfare Department, the Old Age Assistance Bureau, the State (Juvenile) Corrections Commission which supervises the Boys' Vocational School in Lansing and the Girls' Training School at Adrian, and the State Institute Commission supervising the Michigan Employment Institute for the Blind at Saginaw. Subsidiary county commissions are also abolished.

General supervision of all these agencies, whether they dispense federal and state or state and county funds, is placed directly

within the power of a five member Social Welfare Commission appointed by the Governor.

The Social Welfare Commission is authorized to appoint in turn a director of the



L. G. CHRISTIAN, M.D., Lansing
Appointed to Michigan Social Welfare Commission
for two-year term, by Gov. Dickinson.

department of social welfare and a supervisor of a bureau of social security, both to serve at the pleasure of the commission subject to removal for cause by the Governor.

Dual Set-up

It was the apparent intent of the administration to separate functions such as Old Age Assistance and Aid to Dependent Children and the Blind, which receive federal aid, from the purely state and county welfare functions.

The legislature found the distinction difficult to determine, with administrative strength finally settling the issue in favor of the so-called "dual set-up."

How this method of administration will work out with the county and how it will meet federal requirements is yet to be determined.

An amendment was written into the bill by its introducer, Senator C. Jay Town, which set up under the state department of social welfare a State Juvenile Institute Commission, composed of five members, to have general supervision of the Boys' Vocational School, the Girls' Training School and the Michigan Children's Institute of Ann Arbor.

With the exception of Wayne County and the City of Detroit there are created by the act social welfare departments, and county social welfare commissions composed of three members, two of whom are chosen by the county board of supervisors and one by the state social welfare commission.

It is provided that within each county department of social welfare there is to be a county bureau of social aid under the administrative head of the state supervisor. This provision was made to render the line direct on federal aid from the Social Security Board in Washington to the actual recipient with a centralized accounting control in Lansing. However, it was intended that the procurement of all services might be made at one central office in the county rather than at distant points, which is sometimes true now, both with the cities and rural districts.

Formula for Distribution

The formula for distribution of state funds, "direct relief," to the counties, a subject over which there arose considerable debate, is specifically as follows:

"1. Need for relief as demonstrated by experience of the respective counties during the preceding one year.

"2. The financial resources of the respective counties.

"3. The amount expended by the respective county departments exclusive of state and federal funds during the preceding year: Provided, however, That the state funds distributed to any county, city or district department of social welfare for any month shall not be less than the amount expended by such department for general public relief, exclusive of state and federal funds during the preceding month."

History of Law's Passage

The legislative history of the reorganization act gives some hint of the conflicting

opinions of organizations and groups interested in the public welfare program.

Nearly three months after the administration bill was introduced and after comparatively little debate, it passed the state senate in substantially the same form as originally drafted by Governor Fitzgerald's advisors. The major change was the creating of a commission and department to supervise the Boys' and Girls' Schools and the Children's Institute at Ann Arbor.

On May 11 the house committee on social aid and welfare reported the measure to the floor of the house with a series of amendments which struck out all forms of dual control from the bill, including such control within the county. They struck out the Town amendment, returning the juvenile institutions to the social welfare commission's strict supervision. It also eliminated provision for a state division of medical care, placing this function entirely within the county.

The house committee generally strengthened local control features of the county boards eliminating reference to federal or state supervision wherever possible. It gave the county board of supervisors almost complete control of county administration by providing that all members of county boards be appointed by the boards of supervisors.

When the amended bill reached the floor for general discussion an attempt was made immediately to restore the dual set-up. After one vote the trial proved a failure.

House members representing a strictly rural out-state majority led an attack on the amended bill which resulted in many radical changes, including amendments to restore all powers now vested in superintendents of the poor, and to permit a member of the county board to act as county supervisor and director of federal and state relief.

Medical Care an Issue

A vigorous dispute arose as to the plan for disposition of medical care. As originally written the bill provided that only qualified physicians should render medical care. The senate committee on finance and appropriations over the objection of the senate welfare committee had broadened the measure not only to include all healers, but to place them on the advisory committee! The law now gives the relief recipient the

right to seek assistance of a practitioner of his or her own choice, but a licensed doctor of medicine is the only person qualified to be chosen as head of the county medical department.

The advisory committee is to be composed of "one doctor of medicine, nominated by the county medical society, one dentist, nominated by the district dental society, and one druggist, nominated by the district pharmaceutical association."

Although attempts were made on the floor of the house to secure direct representation on the county boards, of cities, by increasing the county board membership from three to five members, they were fruitless.

The only qualification required of the county director of social welfare is that he shall have been a resident of the county for at least one year and "shall possess proper executive ability." The house committee had insisted that the director "shall be qualified in the field of social welfare work" but this phrase was stricken during debate on the house floor.

Specifically the bill requires that the *five* members of the Social Welfare Commission be appointed and take office as of *July 1, 1939*, with the emergency relief act (direct relief) remaining in force and effect until that date.

As for the three member county boards the act provides that they "shall be appointed at the annual October session of supervisors . . . and assume their offices . . . not later than November, 1939." Pending appointment of the boards the existing county agencies shall carry on relief work.

Medical Sections

The medical provisions are in Section 14 and 55-K. Section 14 states, in part:

Sec. 14. The state department shall have and be vested with the following additional powers and duties:

(b) To distribute as hereinafter provided, subject to federal rules and regulations, and in accordance with the rules and regulations promulgated by the commission, moneys appropriated by the legislature or received from the federal government for the granting of old age assistance, aid to dependent children, and aid to the blind and otherwise handicapped; for medical, dental, optometric, nursing, pharmaceutical, and burial relief, and the services furnished by professions under act number 162 of the public acts of 1903, as amended, and act number 145 of the public acts of 1933, as amended; and for such other relief or welfare services as may be provided by law.

Section 55 provides, in part:

Sec. 55. The county department shall have and

be vested with the following additional powers and duties:

(a) To administer general public welfare including relief hitherto known as unemployment relief and poor relief, including medical care other than hospitalization, relief for destitute persons lacking residence, and furnish the probate court, on request, investigational and follow-up service in respect to the hospitalization of afflicted adults, afflicted children, and crippled children.

(k) To create within the county department a division of medical care. The county board may appoint a properly qualified and licensed doctor of medicine as the head thereof, and an advisory committee consisting of 1 doctor of medicine, nominated by the county medical society; 1 dentist, nominated by the district dental society; and 1 druggist, nominated by the district pharmaceutical association, to assist in formulating policies of medical care and auditing and reviewing bills for same. Medical care as used in this section and subsections (a) and (b) of this section shall be deemed to include home and office attendance by physicians licensed under public act number 162 of 1903, as amended, or public act number 237 of 1899, as amended, dental service, optometric service, bedside nursing service in the home, and pharmaceutical service. The private physician-patient relationship shall be maintained; and the normal relationships between the recipients of dental, optometric, nursing and pharmaceutical service, and the services furnished by professions under act number 162 of the public acts of 1903, as amended, and act number 145 of the public acts of 1933, as amended, and the persons furnishing these services shall be maintained: *Provided, however*, That nothing in this section shall be construed as affecting the office of any city physician or city pharmacist established under any city charter or of any county health officers or of the medical superintendent of any county hospital.

OSTEOPATHS

The Kansas Statute (G.S., 1935, 65-1201) provides for the issuing of certificates to persons found to be properly qualified granting the "right to practice osteopathy in the state of Kansas, as taught in the legally incorporated colleges of osteopathy of good repute." This statute was enacted in 1913. In *State ex rel. Beck v. Gleason*, 148 Kan. 1, 79 P. (2d) 911 (1938), the defendant, who was licensed under the above statute, but who was not licensed under the Medical Practice Act, claimed the right to practice operative surgery. His contention was that, since 1913, many reputable osteopathic schools had abandoned the original tenets of osteopathy, which were opposed to operative surgery, and now taught that art in their curriculum. It followed, he argued, that under the statute he was entitled to practice operative surgery to the extent that it had become recognized as a branch of osteopathy. The court denied this contention and held that, "Osteopathic physicians . . . are limited to the practice of osteopathy in harmony with the fundamental principles of osteopathy, or what is sometimes spoken of as the science or system of osteopathy, as generally known and understood and as taught in osteopathic schools or colleges of good repute in . . . 1913. Osteopaths, in common with all scientific and professional men, are expected to continue to study, to make progress, to learn more about their profession, and to apply such knowledge in their practice, but they are still engaged in the practice of osteopathy, as that science or system was known and understood when our statutes above mentioned were enacted. . . ."—From *The American Journal of Medical Jurisprudence*.

SUPPLEMENTARY ROSTER

The following physicians, whose names did not appear in The Directory Number of THE JOURNAL, are members of the Michigan State Medical Society:

Allegan County

Ramseyer, G. E. Plainwell

Alpena-Alcona-Presque-Isle

Burkholder, H. J. Alpena
Nesbitt, W. E. Alpena

Bay-Arenac-Iosco-Gladwin

McPhail, Joseph. Bay City
Sweet, Irving. Sterling

Berrien County

Gunn, J. W. Watervliet
Waterson, R. S. Niles

Calhoun County

Abbott, Nelson. Marshall
Drake, Howard H. Battle Creek
Hale, C. E. Marshall
Hansen, Harvey C. Battle Creek
Johnston, S. Theron. Battle Creek

Delta-Schoolcraft

Lindquist, N. L. Manistique

Genesee County

Crane, Harley. Flint
Lavin, K. R. Flint
Leach, J. L. Flint
Pfeiffer, A. C. Mt. Morris
Probert, C. C. Flint
Rowley, J. A. Flint
Schiff, B. A. Flint
Sorkin, S. S. Flint
Stewart, Hugh. Flint
Walder, C. E. Flint

Gogebic County

Pierpont, D. C. Ironwood

Gratiot-Isabella-Clare

Baskerville, C. M. Mt. Pleasant
Lamb, Gordon. Boston, Mass.

Jackson County

Myers, J. H. Jackson

Livingston County

Skinner, Charles E. Howell

Lenawee County

Lennox, A. L. Adrian

Marquette-Alger

Blake, H. P. Marquette
Burke, R. A. Palmer

Monroe County

Acker, W. F. Monroe
Karch, A. W. Monroe
Sanger, E. J. Monroe
Tomlinson, Ledyard. Newport

Newaygo County

Benjamin, Clayton. Grant

Northern Michigan

Huebner, A. C. Onaway

Oakland County

Beattie, Willard G. Ferndale
Flick, John R. Royal Oak
McEvoy, F. J. Royal Oak
Schoenfeld, John B. Birmingham
Wagley, P. V. Pontiac

St. Clair County

Battley, J. C. Sinclair. Port Huron
Brush, H. O. Port Huron
Carey, Louis C. Yale
Derck, W. P. Marysville
Falk, Edwin Carl. Algonac

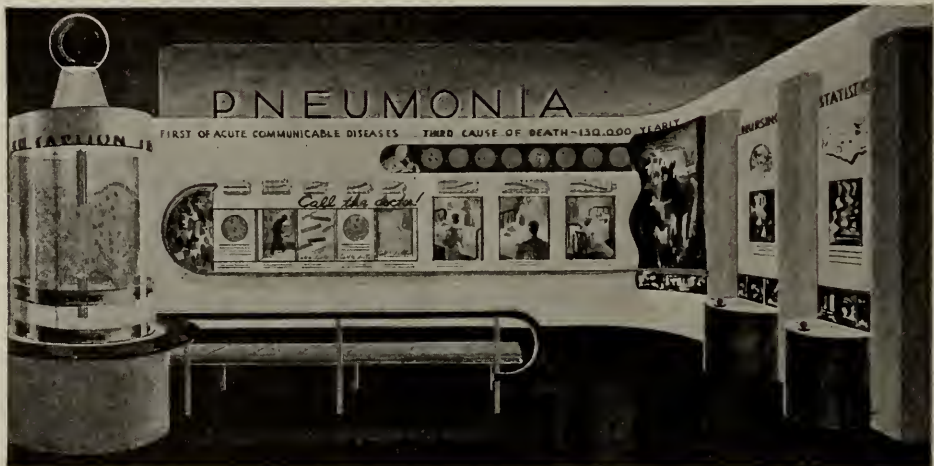
Washtenaw County

Blair, Thomas H. Ann Arbor
Holmes, Kendall B. Ann Arbor
Parnall, Christopher, Jr. Ann Arbor

Wayne County

Barnes, Donald J. Detroit
Berke, Sydney S. Detroit
Berman, Sidney. Detroit
Bloomer, Earl. Dearborn

Burnside, Howard B. Detroit
Carson, Herman J. Detroit
Chall, Henry G. Detroit
Clarke, Niles A. Detroit
Conley, L. C. M. Detroit
Corbeille, Catherine. Detroit
Cowan, Robert L. Detroit
Cushing, Russell G. Detroit
Durham, Robert H. Detroit
Eder, Joseph R. Detroit
Ewing, C. H. Detroit
Ford, George A. Detroit
Friedlaender, Alex S. Detroit
Geise, Fred W. Detroit
Gruhzit, O. M. Grosse Pointe Shores
Hall, Arche C. Detroit
Hanser, Joshua. Detroit
Hardstaff, R. John. Detroit
Harley, Louis M. Detroit
Hewitt, Leland Victor. Detroit
Horkins, Harold A. Detroit
Hunt, Verne G. Detroit
Kates, Simon C. Detroit
Kazdan, Louis. Detroit
Kraft, Raymond B. Detroit
Kraus, John J. Detroit
LaBine, Alfred C. Detroit
Lammy, James V. Detroit
Lang, L. W. Detroit
LeGallee, G. M. Detroit
Malone, Herbert. Detroit
McKenna, Charles J. Detroit
Meyers, Solomon G. Detroit
Mills, Georgia V. Detroit
Pittman, J. E. Detroit
Porter, Howard J. Romulus
Robillard, Henry Joseph. Detroit
St. Amour, Hector J. Detroit
Sanderson, A. R. Grosse Pointe Park
Schiario, Stanley V. Detroit
Schiller, Arthur E. Detroit
Schmidt, Harry E. Detroit
Spademan, Loren C. Detroit
Stamell, Meyer. Detroit
Stubbs, Harold W. Detroit
Sugar, David Israel. Detroit
Thomas, Delma F. Detroit
Watts, J. Detroit
Weisberg, Harry. Detroit
Weisberg, Jacob. Detroit
Wood, Wilford C. Detroit



You will want to visit the Medicine and Public Health Building while attending the New York World's Fair. Among the interesting and educational exhibits you will find Lederle's exhibit on Pneumonia, which occupies a booth 20 by 30 feet in a commanding position. It presents, pictorially, the best composite opinion of the medical profession on how a pneumonia case should be treated. The narrative is unfolded by means of a sequence of dioramas, pictures, and charts. The story begins with an "animation" of a man walking in the rain, and takes him through typing and serum therapy and all the various progressive stages of a typical case of pneumonia to a final picture at the serum farm where his little daughter is pictured, saying, "Thanks, old horse, you saved my Daddy's life!" A "Post-script" deals with Sulfapyridine.

WOMAN'S AUXILIARY

President—Mrs. P. R. Urmston, 1862 McKinley Avenue, Bay City, Michigan
Sec.-Treas.—Mrs. R. E. Scrafford, 2210 McKinley Ave., Bay City, Michigan
Press—Mrs. J. W. Page, 119 N. Wisner Street, Jackson, Michigan

Greetings to our new Auxiliary in the farthest north of Michigan, affiliated with the Houghton-Baraga-Keweenaw Medical Society, and our very best wishes for an interesting and profitable future. Mrs. Maurice Kadin, Public Relations Chairman, writes that this group met for the first time in January of this year and had its formal organization in February, with Mrs. Fitzgerald as adviser. The officers for the year are: Mrs. L. E. Coffin, president; Mrs. T. P. Wickliffe, vice president; Mrs. P. S. Sloan, secretary-treasurer; Mrs. T. D. Stern, president-elect.

Mrs. Kadin writes, "As yet our meetings have been social and educational because we have not been called upon to do any constructive work. However, we are hoping to start the coming season with many projects and activities."

Kalamazoo

Mrs. R. J. Cook was named president and Mrs. K. L. Crawford president-elect at the annual meeting of the Woman's Auxiliary to the Academy of Medicine held at the home of Mrs. R. J. Hubbell on May 16. Other officers are Mrs. Sherman Gregg, vice president; Mrs. Keith Bennett, secretary; and Mrs. R. J. Armstrong, treasurer. Following the annual reports of the officers and committee chairman the retiring president, Mrs. F. M. Doyle addressed the group and Mrs. James Malone gave the history of the auxiliary which is eleven years old.

Preceding the business meeting, twenty-nine members and two guests enjoyed a coöperative dinner.

Jackson County

Tuesday evening, May 16, the Medical Auxiliary held its final meeting of the season at the home of Mrs. D. F. Kudner, 318 S. Higby St. A delicious dinner was served by the following committee: Mesdames G. A. Seybold, A. Culver, M. D. Wertenberger, E. D. Crowley, C. A. Leonarda and W. H. Enders.

Following the dinner, Mrs. R. H. Alter, president, conducted a short business meeting. Annual reports were read, and Mrs. J. H. Meyers gave a very interesting history of the year's work. Mrs. Harry Greenbaum read a splendid synopsis of the Auxiliary survey which she and her committee have been compiling this year, dealing with the various activities of the members—these activities being most wide in scope. Mrs. E. O. Leahy gave the concluding report of the year's project—the installing of some bookcases in the Children's ward of the hospital, and the collecting of discarded children's books from Auxiliary members. The new officers for the coming year were introduced, and the meeting was turned over to the new president, Mrs. A. M. Shaeffer. She, in turn, called upon Mrs. R. G. Bullen, who presented Mrs. Alter, the outgoing president, with a gift of appreciation from the Auxiliary.

The remainder of the evening was spent in playing bridge, prizes going to Mesdames H. M. Chabut and L. J. Harris.

Calhoun County

The Woman's Auxiliary to the Calhoun County Medical Society met Tuesday evening, May 2, at the home of a member for a coöperative dinner. This was followed by a short business meeting conducted by the president, Mrs. C. G. Wencke, when it was decided to give hypodermic syringes to the graduating nurses of both the Battle Creek hospitals, the total number being thirty. Special guests at this meeting were the state president, Mrs. P. R. Urmston and Mrs. R. E. Scrafford, state secretary-treasurer. Mrs. Urmston gave a short talk giving a brief history of the State Auxiliary and stressing some of the things that were expected of the county auxiliaries. Mrs. Wencke then turned the meeting over to Mrs. L. R. Keagle who succeeds her as president for next year.

Kent County

The Women's Auxiliary of the Kent County Medical Society concluded its meetings for the year with an annual luncheon at Blythfield Country Club on May tenth. Mrs. Leon C. Bosch was general chairman for the affair. Mrs. Wm. J. Butler, the outgoing president, presided, and introduced Dr. Wm. R. Torgerson, guest speaker. Dr. Torgerson gave a very instructive talk on "Socialized Medicine." After Dr. Torgerson's speech the reports of officers and committee chairmen were read. Mrs. Ward Ferguson read the report of the nominating committee which was accepted as read, and the slate was elected unanimously. The following is a list of the officers and standing committee heads:

Officers—President, Mrs. Lynn Ferguson; president-elect, Mrs. Robert Eaton; vice president, Mrs. A. J. Baker; recording secretary, Mrs. Charles Frantz; corresponding secretary, Mrs. Millard Shellman; treasurer, Mrs. W. G. Colvin.

Committee chairmen.—Membership, Mrs. Lucian Griffiths and Mrs. Ralph Fitts, co-chairman; Social, Mrs. Thomas Aitken; Press and Year Book, Mrs. Charles Ingersoll; Courtesy, Mrs. James S. Brotherhood; Hygiene, Mrs. F. F. Gibbs; Historian, Mrs. R. H. Denham; Legislative, Mrs. W. J. Butler; Public Relations, Mrs. Wallace Steffenson; Philanthropic and Welfare, Mrs. Guy DeBoer; Revisions, Mrs. J. Clinton Foshee; House, Mrs. John Wenger; Program, Mrs. O. H. Gillett.

At the close of the meeting Mrs. Lynn Ferguson, the new president, called on Mrs. Joseph Whinery, the retiring vice president, to present pins to all the past presidents as a token of our appreciation. They are: Mrs. Thomas Irwin, Mrs. Burton Corbus, Mrs. A. V. Wenger, Mrs. Henry J. Pyle, Mrs. R. H. Denham, Mrs. Carl Snapp, and Mrs. Wm. J. Butler.

Touch and Go

The financier's daughter threw her arms around the neck of the bridegroom-to-be.

"Oh, Walter," she said, "dad's going to give us a check for a present!"

"Good!" said Walter. "Then we'll have the wedding at noon instead of two o'clock."

"But why, dear?"

"The banks close at three."—Saint John Citizen.

MICHIGAN'S DEPARTMENT OF HEALTH

DON W. GUDAKUNST, M.D., Commissioner
LANSING, MICHIGAN

SMALLPOX ON THE INCREASE

A. W. NEWITT, M.D., C.P.H., *Director*
Bureau of Epidemiology
Michigan Department of Health

In spite of the publicity given to the increased incidence of smallpox, it is discouragingly evident that the people of Michigan have not been sufficiently aroused to the seriousness of the situation.

By June 12 a total of 300 cases of smallpox had been reported to the Michigan Department of Health since January 1. There has been a gradual increase in the incidence of smallpox since 1935 when a record low of 16 cases was reported. During 1938 a total of 274 cases was recorded. These figures clearly indicate that there are a sufficient number of susceptible persons in the population to allow the disease to progress. With a preventive as simple and reliable as vaccination so easily available, it is a sad reflection on all concerned that the present situation exists.

Of course, there are several factors, each contributing its share, to complicate the picture. For example, the first case occurring in several communities was diagnosed chickenpox. As a result the contacts of these cases were not vaccinated and it was only after the appearance of the eruption that the disease was identified as smallpox. Consequently, additional people were exposed during the prodromal and early eruptive stages of these secondary cases before quarantine was established.

Another factor which contributes to an indifferent attitude on the part of the public, is that fact that most of the cases have been mild and no deaths have occurred. However, a number of severe cases with confluent lesions have been observed, and if the outbreak continues it is probable that fatalities may ensue.

The age distribution of 264 cases is shown in Table I. This distribution varies but slightly from the age distribution of the population as a whole. It indicates that there has not been sufficient vaccination in any age group of the population of communities in which smallpox has occurred this year. In other words, if children had been thoroughly and consistently vaccinated during the past ten years, the effect would have been shown in significantly lower percentages in the 0-9, 10-19 and 20-29 age groups.

There is no natural immunity to smallpox. Those who have not had smallpox and the unvaccinated will become infected if exposed to a case. The disease is communicable from the onset of prodromal symptoms until the disappearance of all scabs and crusts. The sources of infection are lesions of the mucous membranes and the skin. Contact need not be intimate. Aerial transmission of the virus may occur in hospitals and other buildings. Articles soiled with the discharges of a patient may carry the virus for a brief period of time.

As many of the younger physicians have had little or no experience with this disease the essential features of smallpox and those of chickenpox are enumerated below:

SMALLPOX

Incubation Period

8-16 days
Average 12 days

Prodromal Symptoms

1-5 days of fever, headache, back ache, muscular and joint pains before eruption appears.

CHICKENPOX

14-21 days

Slight fever and mild constitutional symptoms a few hours before appearance of the eruption.

Eruption

(a) Papular 1-4 days
Vesicular 1-4 days
Pustular 2-6 days
Crusts 10-40 days

(b) Lesions deep seated with infiltrated crater-like base, except in very mild cases.

(c) Lesions approximately in the same stage of advancement.

(d) Lesions are typically more abundant on the face, distally on the arms and legs, least abundant on the trunk.

(a) Maculopapular few hours
Vesicular 3-4 days
Granular, superficial, scab 4-10 days

(b) Lesions superficial

(c) Lesions appear in crops and frequently are found in different stages of advancement.

(d) Lesions are generally evenly distributed over the body.

Period of Communicability

From appearance of first symptoms until disappearance of all scabs and crusts.

6-10 days after appearance of first crop of vesicles.

Because 90 per cent of people have had chickenpox before they reach fifteen years of age, all persons over that age presenting a vesicular eruption should be regarded as smallpox suspects. If there is any doubt, an experienced consultant should be called to definitely establish the diagnosis.

Recognized methods for controlling spread of smallpox from the infected individual, contacts and environment are:

1. Recognition and reporting of the cases.
2. Isolation until the period of communicability is passed.
3. Concurrent and terminal disinfection.
4. Quarantine, isolation of all contacts until vaccinated with potent vaccine, daily medical observation of vaccinations until the height of reaction has passed, and if vaccinated several days after exposure observation should be continued for sixteen days from last exposure.
5. Investigation of source of infection should be made to find the immediate prior case and his contacts.
6. General immunization by vaccination of susceptibles in the population.

Vaccination

Method—In order to insure successful inoculation of the vaccine and to avoid possible complications such as secondary or subsequent infections at the site of vaccination, the following procedures are recommended:

1. Prepare the skin over the insertion of the deltoid muscle by cleansing with alcohol or acetone. Wait for the skin to dry.
2. Break off one end of the capillary tube containing the vaccine and insert the open end into the rubber bulb. Then break off the other end of the tube. Expel a droplet of vaccine on the skin at the site.
3. Break off the end of the tube containing the needle, avoiding contamination of the needle point by the fingers.
4. Holding the needle nearly parallel with the skin, apply the pointed end to the skin through the vaccine with a firm pressure. By this procedure the vaccine is carried into the superficial layer of cells in the epidermis. The needle should be applied rapidly in this manner about 15 times and

over an area not exceeding one-eighth inch in diameter. No scarification or bleeding should occur.

5. Wipe off excess vaccine with a bit of cotton.

6. No dressing of any kind should be applied over the site of vaccination.

7. If secondary infection occurs because of premature removal of the scab, treat as an infected superficial wound.

Interpretation of Reactions

1. Immune Reaction. A person having complete immunity to smallpox will develop a distinct papule at the site of vaccination within forty-eight hours. The papule rapidly disappears and, therefore, it is necessary to inspect the vaccination at forty-eight hours if an immune reaction is anticipated.

2. Partial or Incomplete Immunity Reaction. Persons who have been previously vaccinated and who retain a partial immunity will develop a reaction from 3 to 7 days following revaccination. The degree of reaction is a measure of immunity and varies from a very small vesicle which rapidly disappears, to a reaction only slightly less than a primary.

3. Primary Reaction. Persons who have never been successfully vaccinated will develop a papule at the site of vaccination in four to five days. The reaction progresses to a maximum which is usually reached on the ninth day.

Vaccine may lose its potency after exposure for only a few hours to room temperature. It is exceedingly important, therefore, to keep the product at freezing temperature when not in use.

TABLE I. AGE DISTRIBUTION OF SMALLPOX IN MICHIGAN BY TEN-YEAR PERIODS
January 1 to May 1, 1939

Age Group	Males	Females	Total	Age Percentage Distribution
0-9	18	22	40	15.1
10-19	31	24	55	20.8
20-29	37	22	59	22.3
30-39	25	17	42	15.9
40-49	18	15	33	12.5
50-59	16	7	23	8.7
60-69	5	4	9	3.4
70	2	1	3	1.1
TOTALS	152	112	264	—

PRENATAL BLOOD TEST REQUIRED BY NEW LAW

A prenatal blood test is required by Act No. 106, P.A. 1939. The act has been given immediate effect. The new law, an amendment to Act No. 272, P.A. 1919, requires that every physician attending a pregnant woman shall take, or cause to be taken, a sample of blood of such woman at the time of first examination for a standard serological test for syphilis at an approved laboratory. Every other person permitted by law to attend pregnant women, but not permitted by law to make a blood test, shall cause a sample of blood of the pregnant woman to be taken and submitted to an approved laboratory. Laboratories making such blood tests must be approved by the Michigan Department of Health. Serological tests required by this act will be made on request free of charge by the laboratories of the Michigan Department of Health located at Lansing, Grand Rapids, Houghton and Powers.

A further provision of the new act requires that physicians and others reporting births and stillbirths shall state on the birth certificate the date

when the prenatal blood test was made; or if not made, the reasons therefor. The result of the test will not appear on the birth certificate.

The standard birth certificate of the Michigan Department of Health has been revised to comply with the provisions of this new act. The new certificates may be obtained through the offices of the county clerks.

The complete text of Act No. 106, P.A. 1939, follows:

HAMILTON-KIRCHER ACT REQUIRING PRENATAL BLOOD TEST

Act No. 106, P.A. of 1939

AN ACT to amend the title of Act No. 272 of the Public Acts of 1919, entitled "An act to protect the public health; to prevent the spreading of venereal diseases, to prescribe the duties and powers of the State Department of Health and of local health officers and health boards with reference thereto, and to make an appropriation to carry out the provisions hereof," as amended, being sections 6631 to 6634, inclusive, of the Compiled Laws of 1929; and to add thereto a new section to stand as section 3 thereof.

The People of the State of Michigan enact:

Section 1. The title of Act No. 272 of the Public Acts of 1919, entitled "An act to protect the public health; to prevent the spreading of venereal diseases, to prescribe the duties and powers of the State Department of Health and of local health officers and health boards with reference thereto, and to make an appropriation to carry out the provisions hereof," as amended, being sections 6631 to 6634, inclusive, of the Compiled Laws of 1929, is hereby amended, and a new section is hereby added to said act to stand as section 3 thereof, said amended title and added section to read as follows:

TITLE

An act to protect the public health; to prevent the spreading of venereal diseases, to prescribe the duties and powers of the State Department of Health and of local health officers and health boards, and physicians, with reference thereto.

Section 3. Every physician attending a pregnant woman in the state of Michigan shall, in the case of each woman so attended, take or cause to be taken a sample of blood of such woman at the time of first examination, and submit such sample to an approved laboratory for a standard serological test for syphilis. Every other person permitted by law to attend upon pregnant women in the state, but not permitted by law to take blood tests, shall cause a sample of the blood of such pregnant woman to be taken and submitted to an approved laboratory for a standard serological test for syphilis. The term "approved laboratory" shall mean a laboratory approved for this purpose by the State Department of Health. A standard serological test for syphilis shall be one recognized as such by the State Department of Health. Such laboratory tests as are required by this act may be made on request without charge by the State Department of Health.

In reporting every birth and stillbirth, physicians and others permitted to attend pregnancy cases and required to report births and stillbirths, shall state on the birth certificate or stillbirth certificate, as the case may be, whether a blood test for syphilis has been made during such pregnancy upon a specimen of blood taken from the woman who bore the child for which a birth or stillbirth certificate is filed and, if made, the date when such test was made, and if not made, the reason why such test was not made. In no event shall the birth certificate state the result of the test.

Such tests and reports shall not be made a matter of public record but shall be available to local health officers and to the physicians treating the patient.

This act is ordered to take immediate effect.

PREMARITAL PHYSICAL EXAMINATION LAW AMENDED

The Antenuptial Physical Examination Law of 1937 has been amended by Act No. 112, P.A. 1939, which has been given immediate effect. The amended act now specifies 30 days instead of 15 in which applicants for a marriage license may complete their medical examination requirements.

The act as amended also corrects a provision of the 1937 law which worked a hardship on certain exceptional "Wassermann-fast" cases. Marriage is now possible for such persons in a non-communicable stage of syphilis, providing there is no danger to the proposed marital partner nor to the possible issue of the marriage.

MICHIGAN'S DEPARTMENT OF HEALTH

Special certificates for this dispensation will be granted by the State Commissioner of Health upon application by the examining physician. Application forms for this purpose may be obtained from the county clerk or upon request to the Michigan Department of Health. The special dispensation certificates granted only by the State Health Commissioner will be accepted by the county clerks in lieu of the regular antenuptial medical examination forms.

The State Health Commissioner has ruled that special certificates will not be issued to applicants for marriage licenses when such applicants have an active case of syphilis even though they may be receiving treatment. The examining physician or physicians and the State Health Commissioner must certify that such an applicant would not endanger the health of the other party to the proposed marriage or the health of the issue of such a marriage.

The standard antenuptial physical examination certificate now being used will be altered slightly to conform to the provisions of the amended act and may be obtained from the offices of the county clerks.

The complete text of Act No. 207, P.A. 1937, as amended, is as follows:

MICHIGAN'S PREMARITAL PHYSICAL EXAMINATION LAW

Act No. 207, P.A. of 1937, As Amended by Act No. 112, P.A. 1939

AN ACT to provide for an antenuptial physical examination; to provide a penalty for the violation of the provisions of this act; and to declare the effect of this act.

The People of the State of Michigan enact:

Section 1. All persons making application for license to marry shall at any time within 30 days prior to such application be examined as to the existence or non-existence in such person of any syphilis, gonorrhea or chancroid, and except as herein otherwise provided, it shall be unlawful for the county clerk of any county to issue a license to marry to any person who fails to present and file with such county clerk a certificate setting forth that such person is free from syphilis, gonorrhea and chancroid. In order to obtain a certificate as required in this act, both parties to a proposed marriage shall, within 30 days prior to making application for license to marry, submit to medical examination for the presence of syphilis, gonorrhea or chancroid. All laboratory tests required by this act shall be made by the Michigan Department of Health or a laboratory which is approved by the State Commissioner of Health. The State Commissioner of Health may establish standards for the equipment and operation of approved laboratories, and may remove a laboratory from the approved list if it shall be established to the satisfaction of said Commissioner that such laboratory is inadequately equipped or improperly operated. Such tests as may be made by the Michigan Department of Health shall be free of charge. Laboratory tests shall include a serological test approved by the State Commissioner of Health, a dark field test where indicated and a microscopic test for gonococci when indicated, the specimens for which shall be submitted in a manner prescribed by the State Commissioner of Health. Such certificates of negative findings as to each of the parties to a proposed marriage, or certificate issued by the State Commissioner of Health as provided in section 1a of this act, shall be filed with the county clerk at the time application for a license to marry is made.

Section 1a. If it shall be found, on the basis of the laboratory and clinical findings that the applicant is not free, or question exists as to such freedom, from one or more of said diseases, but that, in the opinion of the examining physician the said disease, or diseases, is in a non-communicable stage, the applicant may apply to the Commissioner of Health for a certificate setting forth that the applicant has been qualified according to law under special dispensation provided by this act for marriage. Such certification may be issued, providing in the opinion of the State Commissioner of Health and other examining physician or physicians as may be designated by said Commissioner of Health to reexamine, that such applicant would not endanger the health of the other party to a proposed marriage or the health of the issue of such marriage, providing further that the reason for such special certification shall be explained to the proposed marital partner. Such appointee or appointees may include the physician performing the original examination. Any reexamination of the applicant for a certificate from the State Commissioner of Health shall be

made within 30 days prior to the making of an application for a license to marry by the applicant.

Any certificate issued in accordance with the provisions of this section shall be kept by the county clerk separate and apart from all other records of his office pertaining to said marriage; and all information upon which decision for approving or not approving the special license of the applicant was made shall be placed in permanent file in the State Department of Health. Such certificates and information are hereby declared not to be public records. It shall be unlawful for any person to disclose the contents of any certificate issued in accordance with this section except to the Michigan Department of Health or to the local health officers or proposed marital partner.

All applications made to the said Commissioner of Health for a certificate in accordance with the provisions of this section shall be made upon an application form provided by the Michigan Department of Health which shall be accompanied by the examining physician's report of his examination stating the result of the laboratory and clinical findings and the reason or reasons why it is deemed that the disease, or diseases, with which applicant is infected is in a non-communicable stage.

Section 2. Any county clerk who shall unlawfully issue a license to marry to any person who fails to present and file a certificate as required by sections 1 or 1a of this act, or any party or parties having knowledge of any matter relating or pertaining to the examination of any applicant for license to marry or clinical and laboratory tests taken by any party to a proposed marriage, who shall disclose the same, or any portion thereof, except as may be required by law, shall be guilty of a misdemeanor, and upon conviction thereof shall be punished as provided by the laws of this state.

Section 3. Any physician who shall knowingly and willfully make any false statement in any certificate given by such physician under this act shall be guilty of a misdemeanor, and upon conviction thereof shall be punished as provided by the laws of this state.

Section 4. Any person who shall violate any of the provisions of this act, for which a penalty is not specifically provided, shall be guilty of a misdemeanor, and upon conviction shall be punished as provided by the laws of this state.

ADVISORY COUNCIL OF HEALTH REORGANIZED

The appointment of new members to the State Advisory Council of Health, which serves in an advisory capacity to the State Health Commissioner, has been announced by Governor Dickinson. The new members of the reorganized Council include Carleton Dean, M.D., of Charlevoix, director of District Health Department No. 3; A. D. Aldrich, M.D., of Houghton; Roy C. Perkins, M.D., of Bay City; Henry F. Vaughan, D.P.H., commissioner of the Detroit Department of Health; and John Lavan, M.D., city health officer of Grand Rapids.

Retiring members of the Advisory Council include Robert B. Harkness, M.D., of Hastings, George J. Curry, M.D., of Flint; W. Lloyd Kemp, M.D., of Birmingham; H. Lee Simpson, M.D., of Detroit; and P. C. Lowery, D.D.S., of Detroit.

At the first meeting of the reorganized Council with the State Health Commissioner on Friday, May 26, Dr. Vaughan was elected president and Dr. Lavan, secretary. The Council approved the new forms for the administration of Michigan's amended premarital examination law. The Council also approved the regulation that hereafter all medical examination certificates issued by doctors outside of Michigan must be forwarded by the county clerk to the Michigan Department of Health for approval before such certificates may be accepted. The Council also considered tentative budgets of the Department for the fiscal year 1939-40.

PUBLIC HEALTH CONFERENCE TO BE HELD IN GRAND RAPIDS

The Nineteenth Annual Michigan Public Health Conference will be held in Grand Rapids November 8, 9 and 10, 1939, it has been announced by the

Michigan Public Health Association and the Michigan Department of Health. Headquarters will be at the Pantlind Hotel. It had previously been planned to hold the annual meeting in Lansing this year, but a conflict with another conference on the same dates made this impossible, it was announced by the officers and directors of the Michigan Public Health Association, meeting at Lansing April 27. It was then decided to return to Grand Rapids where the very successful 1938 Conference was held. A joint meeting of the representatives of the Michigan Public Health Association and the Michigan Department of Health will be held in Lansing to arrange the details of the 1939 program.

SMALLPOX CONTINUES TO SPREAD

The spread of smallpox in Michigan during the current year has gathered such headway that by the end of May a total of 280 diagnosed cases had been reported to the Michigan Department of Health. This exceeds the total of 274 cases for the entire year of 1938 and is a sad contrast to the 16 cases reported in 1935.

The smallpox situation has become so serious in Central Michigan that the State Health Department has invoked its police powers to enforce either vaccination or quarantine of all persons exposed to the disease. During the month of May, ten counties reported a total of 56 cases of smallpox. These counties included Arenac, Clare, Gladwin, Gratiot, Isabella, Mason, Midland, Missaukee, Saginaw, and Wexford.

All full time local health departments have been requested to take definite action in securing widespread vaccination of the susceptible population. The physicians of Michigan are requested to co-operate in every way possible in securing vaccination and revaccination of their patients as a means of controlling the most extensive smallpox outbreak in this state since 1931.

POSTGRADUATE OBSTETRICAL TRAINING

The Bureau of Maternal and Child Health has announced continuation of its program to provide intensive postgraduate training in obstetrics at the University of Michigan during the coming year. During the past year, two doctors have been assigned for each training period of two weeks. This number will be increased to four or five doctors for each of the two weeks' postgraduate courses. Physicians interested in attending these postgraduate short courses in obstetrics may make application through the Michigan Department of Health at Lansing.

The doctors taking the course participate in the prenatal and postpartum clinics, observe deliveries, attend cancer, endocrinology and gynecological clinics, and take part in staff discussions. The course is under the personal supervision of two instructors who will give instruction in the conduct of complicated obstetrical cases and in recent developments in the practice of obstetrics.

NEW MIDLAND COUNTY HEALTH DIRECTOR

Dr. Kalman Scott von Haitinger of Hillsdale, Michigan, has been appointed director of the Midland County Health Department, it has been announced by the State Health Commissioner. Dr. von Haitinger succeeds Dr. Edwin H. Place who

has been taking advanced work in public health administration at the University of Michigan. Dr. Norman DeNosaquo of the Michigan Department of Health has been directing the activities of the department temporarily in the absence of Dr. Place. Upon the completion of his work at the University of Michigan, Dr. Place will accept a position with the W. K. Kellogg Foundation.

Dr. von Haitinger is a graduate of Tusculum College, Tennessee, and received his M.D. at the University of Louisville in 1934. He interned at Hackensack Hospital, New Jersey, and acted as staff physician for 18 months at the New Jersey State Village for Epileptics. His public health training was received at the University of Michigan in 1938. Dr. von Haitinger has also had two years of private practice. He goes to Midland County from a position as assistant director for the Hillsdale County Health Department which he has held during the past year.

ST. JOSEPH COUNTY HEALTH DIRECTOR

Dr. Lawrence Berg, former director of the Menominee County Health Department, has been appointed director of the recently organized full time health department in St. Joseph County. Dr. Berg assumed his new position June 1, with headquarters at Centerville. Dr. Berg is a graduate of the University of Michigan Medical School. Following his internship and a year in private practice, Dr. Berg returned to the University of Michigan where he completed the requirements for his Masters Degree in public health administration. He has also recently completed advanced work in public health at Harvard University.

ROCKEFELLER SCHOLARS VISIT MICHIGAN

The International Health Division of the Rockefeller Health Foundation is sending four of its fellows to Michigan this summer to study the organization of public health work in this state. The visitors will be in Michigan for a period of six weeks studying the organization of both the state and local health activities.

The fellows who will visit Michigan during the period from May through August will include Dr. Erkki Leppo who upon completion of his training in the United States will become the first county health officer in Finland. Dr. Joseph L. Gayton and Dr. Robert J. MacDonald are local health officers in British Columbia. The fourth fellow to visit Michigan this summer will be Dr. J. Harold Shaw who will become director of the Provincial Laboratory of Prince Edward Island.

NEW LABORATORIES REGISTERED

The Bureau of Laboratories has announced that the following laboratories have been registered for making examinations in the serodiagnosis of syphilis:

Ypsilanti State Hospital Laboratory (Reg. No. 150), Ypsilanti, Michigan
St. Mary's Hospital Laboratory (Reg. No. 248), Marquette, Michigan.

PERSONNEL

Dr. Marie Hagele of Chicago has been appointed to the staff of the Bureau of Maternal and Child Health, effective June 1. Dr. Hagele will serve as

IN MEMORIAM

a regional consultant in maternal and child health. The new consultant has just completed advanced work in public health at the University of Michigan. Previous to that time she interned at the Research and Educational Hospital of the University of Illinois. She taught for several years in the Cook County School of Nursing. Dr. Hagele received her M.D. and M.S. at the University of Illinois College of Medicine.

Dr. Emily Ripka, staff physician of the Bureau of Maternal and Child Health, will return to the Department in June following a year of postgraduate training in public health at Harvard University. Dr. Ripka will assume her duties as regional consultant in maternal and child health.

Miss Mabel G. Munro of the Bureau of Public Health Nursing has been assigned to the Upper Peninsula as regional supervisor of all public health nurses in that area. Miss Munro recently returned from New York State where she carried on an intensive study of public health nursing administration. Miss Munro's office in the Upper Peninsula will be at the Northern Michigan Children's Clinic at Marquette, which has been made available through the courtesy of the Children's Fund of Michigan.

IN MEMORIAM

C. H. Belknap, M.D.

Clarence Herbert Belknap was born November 5, 1891, in Eden, Erie County, New York. He was graduated from the Detroit College of Medicine and Surgery in 1916 and during the following year served an internship at The Grace Hospital, Detroit. Following his internship he enlisted in the Medical Corps of the United States Army, attained the rank of Captain and was stationed at Fort Riley, Kansas. He returned to Detroit following the war and established offices at the corner of Grand River and West Chicago where he remained until 1936 when he moved to 5525 West Chicago. In the latter place he built and occupied one of the finest and most up to date offices in the city of Detroit. Dr. Belknap loved life and living and had a large number of fine, loyal friends. He was extremely loyal to his patients and when not out of the city was always available to anyone. He enjoyed one of the largest practices in the city of Detroit, was particularly interested in Hyperthermia, and at the time of his death held the position of Associate Attending in the division of Internal Medicine of The Grace Hospital Staff. He is survived by his widow, Loraine Buchanan Belknap and a brother, Grover, who lives in Mississippi.

—CLARENCE I. OWEN, M. D.,
in the Detroit Medical News.

William Robert Clinton, M.D.

Dr. William R. Clinton was born at Windsor, Ontario, October 6, 1889, and received his early education in the Windsor schools. He was graduated from the Detroit College of Medicine in 1911, and during the next two years served his internship at Harper Hospital. Immediately after com-

pleting his internship he became a member of the hospital staff. At the time of his death, he was Staff Surgeon and member of the executive committee, having been very active for many years as a brilliant surgeon, organizer and teacher.

Dr. Clinton helped organize the cancer committee and cancer service at Harper Hospital and recently was the chairman of the shock and blood bank committee. He was painstaking and conscientious in the diagnosis and care of his many charity as well as his private patients.

In 1913, Dr. Clinton became associated with Drs. Clark D. Brooks, Wyman D. Barrett and the late Dr. Angus McLean, and his association with Dr. Brooks continued until his death. He also leaves an association with Dr. L. Byron Ashley of twenty-three years and Dr. Clarence E. Weaver of fifteen years.

Dr. Clinton was Assistant Professor of Clinical Surgery in the Wayne University Medical School, a Fellow of the American College of Surgeons, a Member of the American Board of Surgery, American Medical Association, Michigan State Medical Society, Wayne County Medical Society, Detroit Academy of Surgery, Detroit Academy of Medicine and the Nu Sigma Nu fraternity.

Dr. Clinton was an active member of the Westminster Presbyterian Church and was especially interested in the church camp. He was also a member of the Detroit Boat Club and the Detroit Golf Club. Golf was his main hobby and many of the members of the Wayne County Medical Society will miss their enthusiastic and jovial partner. He also loved flowers and plants and knew the latin names, characteristics and seasonal features of most of them, enjoying their beauty in his garden, in the woods, on the golf course and in his patients' rooms.

Surviving are his wife, Mrs. Helen McKenzie Clinton, and his two sons William McKenzie Clinton and Nelson James Clinton, and his mother, Mrs. Rachel B. Clinton.

Many relatives, a host of friends, his associates and hundreds of grateful patients honor his memory.

CLARK D. BROOKS, M.D.
L. BYRON ASHLEY, M.D.
CLARENCE E. WEAVER, M.D.

Thaddeus Walker, M.D.

Dr. Thaddeus Walker, Detroit physician and surgeon, died suddenly June 13, 1939, in his home at 411 Lakeland avenue, Grosse Pointe.

Born in Walkerville, Ont., Aug. 29, 1869, he was a graduate of the University of Michigan and the Detroit College of Medicine. He began his practice in 1897 and retired in 1912.

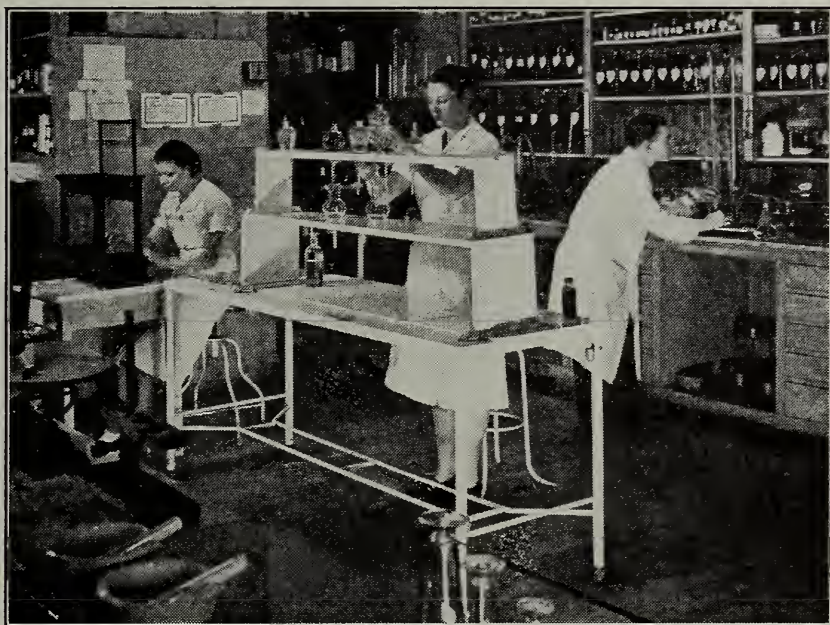
During the Spanish-American War he served as a contract surgeon. In 1919 he was appointed chairman of a Victory Loan committee which directed a campaign to raise \$350,000,000 for the Dominion of Canada.

Dr. Walker was well known to the older members of the Wayne County Medical Society. For a number of years he conducted the Detroit Clinical Laboratory at the first club rooms of the society.

He was a member and former president of the Detroit Club.

Dr. Walker married Irene Bissell Davis, of Detroit, on October 15, 1900. He is survived by his wife and two daughters, Mrs. J. George Birkett, of Darien, Conn., and Miss Margaret Walker, of Detroit.

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◆ General News and Announcements ◆

The 100 Per Cent Club of the Michigan State Medical Society

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Menominee
Midland
Muskegon
Newaygo
O.M.C.O.R.O.
Oceana
Ontonagon
Ottawa
St. Joseph
Shiawassee
Tuscola
Wexford-Kalkaska-Missaukee

Other County Medical Societies are near the 100 per cent mark—being out of the honorary club by just one or two members not having paid 1939 dues. Help your society to be in the 100 Per Cent Club.

The Berrien County Medical Society adopted a new Constitution at its May meeting.

At the annual meeting of the Joint Committee on Health Education, held in Ann Arbor on June 7, Dr. B. R. Corbus of Grand Rapids was re-elected Chairman of the Committee, and Dr. Henry A. Luce of Detroit was made a member of the Board of Directors.

J. C. Foshee, M.D., and *W. P. L. McBride, M.D.*, Grand Rapids, are the authors of an article appearing in the June 17 issue of *The Journal of the A.M.A.* entitled "Leiomyosarcoma of the Duodenum: Report of a Case and Review of the Literature."

Governor Dickinson appointed the following as the Advisory Council to the State Health Commissioner: Carleton Dean, M.D., Charlevoix; A. D. Aldrich, M.D., Houghton; Roy C. Perkins, M.D., Bay City; Henry F. Vaughan, Dr.P.H., Detroit; and John Lavan, M.D., Grand Rapids.

Thank Your Legislators. Medical men have much for which to be thankful in the fine medical laws which your Michigan legislators enacted this year. We recommend that you personally thank your Senator(s) and Representative(s) who voted for the progressive legislation you favored.

To Dr. Z. L. Gilding of Vicksburg, Michigan, is extended the sympathy of the medical profession

in the loss of his wife, Mrs. Margaret E. Gilding, who died in June. Mrs. Gilding took an active part in the Woman's Auxiliary and was the first president of the Auxiliary to the Kalamazoo Academy of Medicine.

Michigan's delegates to the St. Louis Session of the American Medical Association were honored by the following appointments: Henry A. Luce, M.D., Detroit, to the Committee of Seven to consider the Wagner Act; L. G. Christian, M.D., Lansing, Committee on Legislation and Public Relations; T. K. Gruber, M.D., Eloise, Committee on Amendments to Constitution and By-Laws.

Casce (calcium caseinate), which is almost wholly a combination of protein and calcium, offers a quickly effective method of treating all types of diarrhea, both in bottle-fed and breast-fed infants. For the former, the carbohydrate is temporarily omitted from the 24-hour formula and replaced with eight level tablespoonfuls of Casce. Within a day or two the diarrhea will usually be arrested, and carbohydrate in the form of Dextri-Maltose may safely be added to the formula and the Casce gradually eliminated.

Governor Dickinson recently reappointed three members of the Michigan Crippled Children Commission and filled the other two vacancies. Those reappointed for one-year terms were Harold N. Fenech, M.D., Detroit; Mrs. L. James Bulkley, Grosse Pointe. Hugh Van de Walker of Ypsilanti, who has been Commission Chairman since its inception, was re-appointed for a two year term. The new members are Emmet Richards, Alpena, a former member of the Commission, named for a three-year term, and Dennis Clancy of Hillsdale appointed for two years.

Afflicted Child Commitments for the month of May, 1939—Total cases 1,526 of which 210 went to University Hospital and 1,316 to miscellaneous hospitals. Of the above Wayne County sent 19 to University Hospital and 264 to miscellaneous hospitals for a total of 283.

Crippled child for May, 1939—Total cases 1,078 of which 56 went to University Hospital and 1,022 to miscellaneous hospitals. Of the above Wayne County sent 2 to University Hospital and 54 to miscellaneous hospitals for a total of 56.

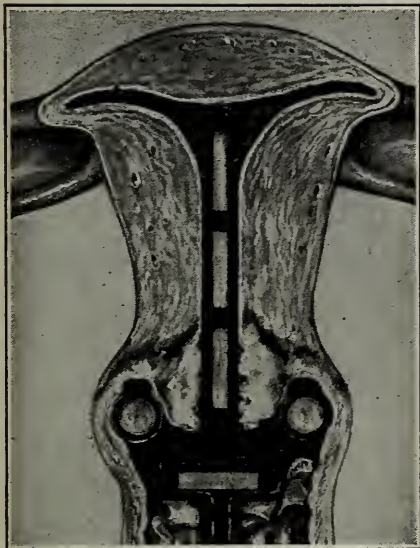
The Jackson County Medical Society has developed a very useful leaflet entitled "Step by Step Routine for Obtaining Authorization for Treatment and Receiving Payment for Same in all Types of Cases Except Private Practice." This outline covers city indigent cases (hospital cases only), city indigent cancer cases, county indigent, county indigent at large, afflicted children, venereal indigent cases, chronic indigent (welfare), crippled children, afflicted adults, insane, epileptic or feeble-minded, and emergency afflicted child.

This pamphlet is a very valuable addition to the office records of physicians.

Physicians who addressed county medical societies during June include:

S. W. Becker, M.D., chief of the department of skin disease at the University of Chicago, was

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guest speaker at the meeting of the Berrien and Cass County Medical Society held June 8. His subject was "The More Common Skin Conditions."

John T. Hodgen, M.D., Grand Rapids, gave a paper on "Disabilities of the Foot" illustrated by lantern slides, at the meeting of the Ionia-Montcalm County Medical Society held in Portland June 13.

Lloyd E. Verity, M.D., Battle Creek, discussed "The Application of Electrocardiography to Clinical Medicine" at the meeting of the Eaton County Medical Society on June 15, which was held in Charlotte.

Harold Wiley, M.D., Lansing, spoke before the Shiawassee County Medical Society on June 15. His topic was "Prenatal Care."

Wm. H. Holmes, M.D., Chicago, was the guest speaker at the combined meeting of the Kalamazoo Academy of Medicine and the Woman's Auxiliary held on June 20. His subject was "A Visit to the National Leprosarium in Guatemala."

* * *

The following is an excerpt from the talk by Wm. J. Cameron of the Ford Motor Company which he gave on April 16: "We have a warm spot in our hearts for doctors because it was a young American Doctor, now eminent in his profession, who was the first purchaser of a Ford car. And since the profession has been undergoing a little of the ragging that all business men suffered a little while ago, our sympathy is perhaps a bit more lively.

"As a people—this includes Canada—we are, beyond all doubt, the healthiest in the world. The reason is, perhaps, that more than most, we have emerged from medical superstition. Still there is a lot of nonsense uttered on this point. One re-

*cently read a booklet written by a so-called "liberal" who used the perfectly legitimate fact that 50 per cent of our people the year before had not received any medical attention. He used that fact to imply that 50 per cent of our people were *denied* or *unable to get* such attention. Any doctor will confirm that *part* of the 50 per cent who *do* demand medical attention do not need it—they are neurotics, or persons frightened on account of others, or young parents—God bless them!—who want to be 'sure' about the baby. As a matter of statistics 57 per cent of our people *never* have required medical attention because of *disease*."*

* * *

Michigan Pathological Society

The regular meeting of the Michigan Pathological Society was held at the Blodgett Memorial Hospital, Grand Rapids, Michigan, on the afternoon and evening of June 10. The demonstrations and scientific program were as follows:

Dr. C. V. Weller—"Endometriosis of the Ovary."

Dr. Kerr and Dr. F. Hartman—"Two Solid Tumors of the Ovary."

Dr. E. W. Lange—"Carcinoma of the Fallopian Tube" and "Solid Teratoma of the Ovary."

Dr. A. A. Humphrey—"Lycopodium Granuloma."

Dr. O. A. Brines—"Thecoma" and "Brenner Tumor."

Dr. C. A. Payne—"Teratoma of the Ovary."

Dr. O. W. Lohr—"Brenner Tumor."

Dr. D. C. Beaver—"Granulosa Cell Tumor of the Ovary with Adenocarcinoma of the Uterus."

The meeting was presided over by Dr. O. W. Lohr, president.

TRICHOMONADS IN THE VAGINAL SMEAR

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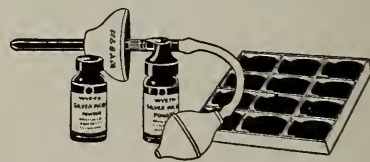


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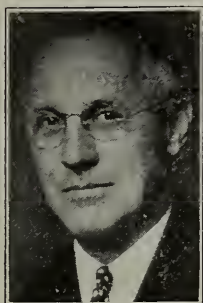


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UPPER PENINSULA MEDICAL SOCIETY

August 23 and August 24, 1939
Bonifas Auditorium, Escanaba, Michigan

WEDNESDAY, AUGUST 23
Afternoon Session



H. F. HELMHOLZ, M.D. JOHN T. MURPHY, M.D.

- P.M.
12:00 Luncheon Honoring MSMS Officers.
Sherman Hotel, Escanaba.
1:30 Henry F. Helmholz, M.D., Rochester, Minn.
"Urinary Tract Infections in Children."
2:15 Francis D. Murphy, M.D., Milwaukee, Wis.
"The Diagnosis and Treatment of Acute
Cardiovascular Emergencies."
3:00 to
3:30 INTERMISSION TO VIEW EXHIBITS.
3:30 L. G. Christian, M.D., Lansing, Mich.
"Serum Treatment of Pneumonia."
4:30 W. E. Blodgett, M.D., Detroit, Michigan.
"First Aid Treatment of Fracture—Trans-
portation."
Evening Session
7:00 Annual Banquet at Delta Hotel
W. W. Bauer, M.D., Chicago, Illinois.
"Popular Beliefs That Are not So."

THURSDAY, AUGUST 24
Morning Session

- A.M.
9:00 Election of Officers.
9:30 Henry R. Carstens, M.D., Detroit, Michigan.
"Peripheral Vascular Disease."
10:15 INTERMISSION TO VIEW EXHIBITS.
10:45 Horton R. Casparis, M.D., Nashville, Tenn.
"Tuberculosis"
11:30 John T. Murphy, M.D., Toledo, Ohio.
"The X-ray Treatment of Advanced Super-
ficial Malignancy illustrated by Colored
Lantern Slides."

ADJOURNMENT

An Announcement from the
Cancer Committee, M.S.M.S.

Organizational, survey, and group educational work in cancer has been ably carried on in Michigan during the past several years by such agencies as the American Medical Association, the American College of Surgeons, the American Society for the Control of Cancer and its representative, the Women's Field Army. It has, however, been for long the unanimous feeling of the members of the Cancer Committee of the Michi-

July, 1939

PROSTATIC DISORDERS

*New Book Presents Their
Prevention and Treatment*

**"FEEL LIKE THIRTY
AT FIFTY"**

By EDWIN W. HIRSCH, M.D.

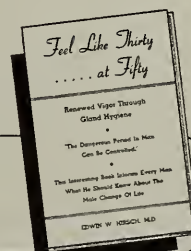
What causes prostate gland disorders? What can be done to ward off this dangerous condition which besets so many of your patients? How can these ailments be treated?

"FEEL LIKE THIRTY AT FIFTY" is an authoritative new book which tells the facts about prostate diseases, their prevention and cure. It answers questions that perplex physicians. Its 116 pages contain findings based on a 20-year practice with prostatic problems of value to every practitioner.

Some of the important subjects discussed are: First Signs of Prostatic Disorders; Relation of Gland Troubles to Inferiority and Nervous Disorders; Prostatic Depression; Sexual Constipation; The Prostate as a Sexual Organ; Rejuvenation Operations; Renewed Vigor Through Gland Hygiene.

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CITY..... STATE

gan State Medical Society that some means should be devised to bring in a direct and personal way to as many individual physicians as possible the latest and best of our still far from complete knowledge about the diagnosis and treatment of this group of diseases. To this end the Committee, as of July first, inaugurates a new service to the medical profession of this state with high hopes that it will be a lastingly helpful innovation. A Field Representative in Cancer, of the Committee, appointed for one year, will visit in turn all counties of the state for periods determined by the needs and desires of particular localities. This representative is jointly sponsored and his salary shared by the Michigan State Medical Society and by the State Department of Health.

Clifford H. Keene, M.D., University of Michigan, 1934, is the Committee's appointee for 1939-40. In addition to bringing to his work the qualifications of extended residencies in surgery and pathology at the University Hospital, Ann Arbor, with intensive training in the field of cancer, Dr. Keene has paid observation visits during the past two months to half a dozen large centers for the treatment of malignant diseases.

It is the Cancer Committee's intention that their representative's work be much along the line of that done by representatives of the Committee on Maternal Health. Taking advantage of the summer months, Dr. Keene will start work in the upper peninsula. By means of letters of introduction from the Executive Office of the State Medical Society, he expects to contact the officers of each of the county societies in turn. Through their help he expects to meet personally as many individual physicians as he can and to discuss with them singly or in groups their problems in connection with cancer. He will also visit hospitals and clinics of the

state where cancer is treated, and attend such local medical meetings as he may encounter.

Dr. Keene will report frequently and be directly responsible to the members of the Cancer Committee. With the wish that his work may add something to the great deal yet to be accomplished in the care of Michigan's cancer victims, your Committee bespeaks a cordial and coöperative reception to their representative by any physician he may visit. They would also be glad to have suggestions and comments as the work progresses.

One hundred and ninety-two (192) Michigan physicians registered at the 1939 St. Louis Session of the American Medical Association. This excellent representation from Michigan reflects the interest and enthusiasm of the members of the medical profession in this state. Among those registered were:

Monday, May 15

Arnold, Harry L., Jr., Ann Arbor.
Badgley, Carl E., Ann Arbor.
Bailey, Louis J., Detroit.
Bartlett, Walter M., Benton Harbor.
Bauer, Lester E., Detroit.
Berman, Harry S., Detroit.
Bernstein, Albert E., Detroit.
Burt, Frederick J., Holly.
Campbell, L. A., Saginaw.
Christian, L. G., Lansing.
Clough, William J., Saugatuck.
Cohn, Daniel E., Detroit.
Cole, W. C. C., Detroit.
Collisi, Harrison S., Grand Rapids.
Danforth, Mortimer E., Detroit.
Davidson, Harry O., Detroit.
DeKleine, E. Hoyt, Detroit.
Downer, Ira G., Detroit.
Doyle, Charles R., Lansing.
Fiedling Wm., Norway.
Fitts, Ralph Lamar, Grand Rapids.
Fitzgerald, Edmond W., Detroit.
Foster, L. Fernald, Bay City.

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James C. Droste, M. D.

Lynn A. Ferguson, M. D.

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 Frazer, Mary Margaret, Detroit.
 Furlong, Harold A., Pontiac.
 Gay, Harold H., Midland.
 Gillard, James L., Muskegon.
 Gruber, T. K., Eloise.
 Hildreth, R. C., Kalamazoo.
 Hoernschmeyer, Joseph Louis, Jackson.
 Hoffmann, Martin H., Eloise.
 Jabsman, William E., Detroit.
 Johnston, Charles G., Detroit.
 Johnstone, Ben. I., Detroit.
 Kessler, Saba, Bay City.
 Keyport, Claude R., Grayling.
 King, Melbourne J., Detroit.
 Lathrop, Frank D., Ann Arbor.
 Levine, D. A., Iron River.
 Littig, John, Kalamazoo.
 Lohr, Oliver W., Saginaw.
 Luce, Henry A., Detroit.
 McGreer, John T., Ann Arbor.
 McIntyre, C. H., Kalamazoo.
 Meyers, Maurice P., Detroit.
 Miller, M. P., Trenton.
 O'Donnell, Dayton H., Detroit.
 Owen, Clarence L., Detroit.
 Parsons, John Purl, Grosse Pt. Park.
 Payne, C. Allen, Grand Rapids.
 Penberthy, Grover C., Detroit.
 Perkins, Ralph A., Detroit.
 Peters, W. L. Morenci.
 Peterson, Joel B., Detroit.
 Plaggemeyer, H. W., Detroit.
 Poos, Edgar E., Detroit.
 Pratt, Jean Paul, Detroit.
 Prentice, Hazel Ruth, Kalamazoo.
 Reeder, Frank E., Flint.
 Riley, Philip, Jackson.
 Robinson, Harold C., Grand Rapids.
 Rogers, J. D., Adrian.
 Roth, Paul, Battle Creek.
 Rupp, Jacob R., Detroit.
 Ryan, M. D., Saginaw.
 Ryan, Richard S., Saginaw.
 Selby, C. D., Detroit.
 Shaffer, Joseph Haskell, Detroit.
 Sheldon, John P., Sturgis.
 Shepard, B. A., Oshtemo.
 Sherman, R. N., Bay City.
 Shurly, Burt R., Detroit.
 Sodeman, William A., Ann Arbor.
 Spoehr, Eugene L., Ferndale.
 Stefani, Ernest L., Detroit.
 Stolpman, A. Kenneth, Birmingham.
 Stolpestad, C. T., Monroe.
 Sugar, David I., Detroit.
 Urnston, Paul R., Bay City.
 Walters, F. R., Battle Creek.
 White, Carl H., Fenton.
 Wreggit, W. R., Highland Park.
 Zimmerman, Israel J., Detroit.

Tuesday, May 16

Altemeier, William A., Detroit.
 Balyeat, Gordon Wesley, Ann Arbor.
 Beeman, Carl B., Grand Rapids.
 Benson, G. W., Escanaba.
 Branch, Hira E., Detroit.
 Campbell, J. Gary, Stambaugh.
 Chandler, Donald, Grand Rapids.
 Corbus, Burton R., Grand Rapids.
 Credille, Barney A., Flint.
 Curry, George J., Flint.
 Currin, John H., Flint.
 D'Alcorn, Ernest, Muskegon.
 Davis, Fenimor E., Ann Arbor.
 Dodds, F. E., Flint.
 Dutchess, Chas. E., Detroit.
 Flynn, J. Donald, Grand Rapids.
 Folsome, Clair E., Ann Arbor.
 Freund, Hugo A., Detroit.
 Freyberg, Richard H., Ann Arbor.
 Heath, Parker, Detroit.
 Herrick, Ruth, Grand Rapids.
 Hoffman, Theo. E., Vassar.
 Jamieson, R. C., Detroit.
 Kelsey, Lee E., Lakeview.
 Kennard, James M., Detroit.
 Kitchen, D. K., Detroit.
 Lambert, Warren C., Marquette.
 Levin, Samuel J., Detroit.
 Liefers, Harry, Grand Rapids.
 Lipkin, Ezra, Detroit.
 Long, Edgar C., Monroe.
 McCain, Nea J., Ishpeming.
 McClure, Roy D., Detroit.
 McGarvah, J. A., Detroit.
 McNamara, R. J., Detroit.
 McNeill, Howard H., Pontiac.
 Meader, Fred M., Detroit.
 Murphy, John M., Detroit.
 Myers, Gordon B., Detroit.
 Robb, Herbert F., Belleville.

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SURGERY—General Courses One, Two, Three and Six Months; Two Weeks' Intensive Course in Surgical Technique with practice on living tissue; Clinical Courses; Special Courses. Courses start every two weeks.

GYNECOLOGY—Four Weeks' Personal Course, August 28th. Two Weeks' Course October 9th.

OBSTETRICS—Two Weeks' Intensive Course, October 23rd. Informal Course every week.

FRACTURES AND TRAUMATIC SURGERY—Ten-day Formal Course, September 25th. Informal Course every week.

OTOLARYNGOLOGY—Two Weeks' Intensive Course starting September 11th. Informal Course every week.

OPHTHALMOLOGY—Two Weeks' Intensive Course starting September 25th. Informal Course every week.

CYSTOSCOPY—Ten-day Practical Course rotary every two weeks. Urology Courses every two weeks.

ROENTGENOLOGY—Special Courses X-ray Interpretation, Fluoroscopy, Deep X-ray Therapy starting every week.

GENERAL, INTENSIVE AND SPECIAL COURSES IN ALL BRANCHES OF MEDICINE, SURGERY, AND THE SPECIALTIES EVERY WEEK.

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Thosteson, Geo. C., Detroit.
Upjohn, E. Gifford, Kalamazoo.
Vyn, J. D., Grand Rapids.
Weinman, Edward B., Ann Arbor.
Wendel, Jacob S., Detroit.
Wickham, A. B., Detroit.
Witwer, E. R., Detroit.

Wednesday, May 17

Agnew, G. Harry, Detroit.
Barker, Howard B., Pontiac.
Barr, Albert S., Ann Arbor.
Bergo, H. L., Detroit.
Broudo, P. H., Detroit.
Cathcart, Edward, Detroit.
Colef, Irving E., Benton Harbor.
Dempster, J. H., Detroit.
Denison, Louis L., Detroit.
Dunlap, Henry A., Detroit.
Duffy, Ray M., Pinckney.
Eaton, Robert M., Grand Rapids.
Foster, Daniel P., Detroit.
Foshee, John Clinton, Grand Rapids.
Fralick, F. Bruce, Ann Arbor.
Garipey, Louis J., Detroit.
Geerlings, Willis, Fremont.
Goller, Frederick A., Ann Arbor.
Hausen, Frederick E., Detroit.
Hartman, F. W., Detroit.
Herkimer, Dan R., Lincoln Park.
Hershey, Noel J., Niles.
Holmes, Roy Herbert, Muskegon.
Howard, Philip J., Detroit.
Hume, T. W. K., Auburn Heights.
Hyland, William A., Grand Rapids.
Insley, Stanley W., Detroit.
Jones, Horace C., Detroit.
Kahn, R. L., Ann Arbor.
Kullman, Harold J., Detroit.
Laurin, V. S., Muskegon.
Lepard, Cecil W., Detroit.
Mateer, John G., Detroit.
Mayer, Willard D., Detroit.

Miller, Norman F., Ann Arbor.
Mitchell, W. Bede, Detroit.
Pickard, O. W., Detroit.
Ransom, Henry K., Ann Arbor.
Robb, J. M., Detroit.
Sawyer, Harold F., Detroit.
Smith, F. Janney, Detroit.
Smith, R. Earle, Grand Rapids.
Somers, Donald C., Detroit.
Spoehr, Eugene L., Ferndale.
Straith, Claire T., Detroit.
Swenson, H. C., Grand Rapids.
Waddington, Joseph E. G., Detroit.
Weaver, Clarence E., Detroit.
Waldbott, George L., Detroit.
Wander, William G., Detroit.

Thursday, May 18

Baltz, J. F., Detroit.
Eaton, Robert M., Grand Rapids.
Hirschmann, Louis J., Detroit.
Scarney, Herman David, Detroit.
Schnoor, Elmer W., Grand Rapids.
Selling, Lowell S., Detroit.

Dr. Arthur Kimball Northrop, son of Dr. A. K. Northrop of Detroit, and Mary Madeline Kimball, daughter of Mr. and Mrs. S. Kimball, were married at St. Paul's Episcopal Cathedral, Detroit, Michigan, on June 16, 1939.

Doggone!

Defendant, charged with keeping a dog without a license, tried to interrupt the evidence.

"Do you wish the court to understand you refuse to renew your dog license?" asked the magistrate.

"Yes, your worship, but—"

"We don't want any 'buts.' You will be fined. You knew the license had expired."

"Yes; and so has the dog."—*Montreal Star*.

THE DOCTOR'S LIBRARY

Acknowledgment of all books received will be made in this column and this will be deemed by us a full compensation to those sending them. A selection will be made for review, as expedient.

INDUSTRIAL MALADIES. By Sir Thomas Legge, C.B.E., M.D.Oxon, D.P.H., Cantab., late H.M. Senior Medical Inspector of Factories and Medical Advisor to the Trades Union Congress. Edited by S. A. Henry, M.A., M.D., D.P.H., Cantab., D.T.M., Liverpool, H.M. Medical Inspector of Factories. Oxford University Press, London: Humphrey Milford.

This is a posthumous work. With the attention, however, that is being paid to industrial hygiene in the state of Michigan, it will be found extremely timely and will be welcomed by the industrial surgeon and physician in the large manufacturing centers in the state. Among the subjects dealt with are poisoning by various agents used in industry, effects of various chemicals on the skin, pulmonary disease due to dust of factories. There is also a chapter on the vexed subject of compensation for industrial diseases and injuries. Emphasis has, of course, been placed on prevention of industrial maladies. The author quotes Thomas Fuller, "He who cures a disease may be the skillfulest, but he that prevents it is the safest physician." The work is highly commended to the class of physicians for whom it is intended.

FEEL LIKE THIRTY AT FIFTY. RENEWED VIGOR THROUGH GLAND HYGIENE. By Edwin W. Hirsch, B.S., M.D., Author of "The Power to Love" and "Non-Surgical Consideration of Prostatic Enlargement." Chicago: Research Publications, 1939.

This is a little work of 116 pages, small as a book, but large in its treatment of the subject, namely, the prostate gland, for 116 pages is ample and probably as much space as is devoted in any of the larger books on medicine and surgery to a single gland. The author presents an extensive bibliography for the benefit of those readers who would carry the study farther. He gives in detail the function of the prostate. Then follows a chapter on its disorders. Nearly twenty pages are devoted to sex life and the prostate. He describes the fears, in the minds of many, associated with the gland. A chapter is also devoted to early signs of prostatic disturbance and then follows a chapter on prevention. While recognizing certain surgical conditions which are common knowledge to the medical profession, the note throughout the work is optimistic. Now that there is a disposition to turn the attention to geriatrics or the ailments of the aged, this little work is a distinct contribution.

ANEMIA IN PRACTICE—PERNICIOUS ANEMIA. By William P. Murphy, A.B., M.D. Associate in Medicine, Harvard Medical School; Senior Associate in Medicine, Peter Bent Brigham Hospital, Boston; Consultant Hematologist, Melrose Hospital, Melrose, Mass. Illustrated. Philadelphia and London: W. B. Saunders Company, 1939.

While this work contains a section in which other forms of anemia are discussed, it is, in fact, essentially a treatise covering the subject of pernicious anemia. For those who find interest in the historical phases it will prove interesting. For those whose interest is in the more scientific aspects of the disease here is found a complete discussion. The present concept of the physiology of blood formation and its relation to the development of pernicious anemia, as well as the other factors in its

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etiology, have been given the attention that they merit.

In the treatment liver therapy, of course, receives most consideration, yet other factors, such as the education of the patient, are not neglected. In the discussion of liver therapy, the various forms of liver preparations, their relative cost per unit of anti-pernicious substance are discussed.

The practicing physician can not fail to find in this book the knowledge that is essential to the proper handling of a case of pernicious anemia in the light of the latest information on this subject.

Cancer Handbook of the Tumor Clinic, Stanford University School of Medicine: Edited by Eric Liljencrantz, M.D., Chief of Tumor Clinic, Stanford University School of Medicine, U. S. Naval Hospital School of Medicine, More Island and the United States Marine Hospital, San Francisco. Price, \$3.00. Stanford University, California: The Stanford University Press, 1939.

This work of 105 pages is a very valuable book on a very important subject. We would recommend it to everyone practicing medicine whether he undertakes to treat malignant conditions or not. Doctors referring patients for treatment should have at least a theoretical knowledge of the various kinds of therapy, surgical or radiological.

MEDICAL UROLOGY. By Irvin S. Koll, B.A., M.D., F.A.C.P., Attending Urologist, Michael Reese Hospital, with 92 text illustrations and 6 color plates. St. Louis: The C. V. Mosby Company, 1937.

The author has succeeded in simplifying the subject so that the work has an appeal to the medical student and to the general practitioner within whose field, urology, in its less difficult phases, will be found along with those other special fields of practice that may be undertaken by him. Well illustrated and convenient in size, the book will be found

of value for the medical reader for whom it is intended.

OBSTETRICS AND GYNECOLOGIC NURSING. By Frederick H. Falls, M.S., M.D., F.A.C.S., Professor of Obstetrics and Gynecology, University of Illinois College of Medicine, and Ione R. McLaughlin, B.A., R.N., Supervisor of the Department of Obstetrics and Gynecology, Research and Educational Hospital, University of Illinois College of Medicine. Pages 491. St. Louis: The C. V. Mosby Company, Price, \$3.00.

This book is primarily for nurses and students in nursing. It provides a full, rounded knowledge of the subject; a valuable manual on obstetrics and gynecological nursing.

CLINICAL BIOCHEMISTRY. By Abraham Cantarow, M.D., Associate Professor of Medicine, Jefferson Medical College; Biochemist, Jefferson Hospital; and Max Trumper, Ph.D., Clinical Chemist and Toxicologist; formerly in charge of the Laboratories of biochemistry of the Jefferson Medical College and Hospital. With a foreword of Hobart A. Reimann, M.D., Professor of Medicine, Jefferson Medical College. Second Edition, revised. 666 pages. Philadelphia and London: W. B. Saunders Company, 1939. Cloth, \$6.00 net.

DISEASES OF THE NOSE AND THROAT. By Charles J. Imperatori, M.D., F.A.C.S., Professor of Otolaryngology, New York Polyclinic Medical School and Hospital; Formerly Professor of Clinical Otolaryngology, New York Post-graduate Medical School, Columbia University, New York; and Herman J. Burman, M.D., F.A.C.S. Adjunct Professor of Otolaryngology, New York Polyclinic Medical School and Hospital, 480 illustrations, Second Edition, revised. Philadelphia: J. B. Lippincott Company, 1939.

This work is thoroughly up to date. The various chapters take up in some such order as this, embryology, anatomy and physiology of the organ or region. This is followed by a description of the pathology, diagnosis and the various methods of treatment. The book is profusely illustrated; some

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of the illustrations are in color. The operative technic, where indicated, is presented in detail. The work will be found of inestimable value not only to the specialist, but to those physicians who include diseases of the nose and throat along with a general practice.

PSYCHIATRIC NURSING. By William S. Sadler, M.D., Chief Psychiatrist and director, the Chicago Institute of Research and Diagnosis; Consulting Psychiatrist to Columbus Hospital, in collaboration with Lena K. Sadler, M.D., and Anna B. Kellogg, R.N., Price, \$2.75, St. Louis: The C. V. Mosby, Company.

This book teaches the subject of psychiatric nursing, but it does more than this. It gives an intelligent view of the subject of psychiatry in such a way that the layman who is interested may readily understand. We go farther. The physician who is not a psychiatrist will find much practical information that can be of use in his daily work.

LABORATORY MANUAL OF THE MASSACHUSETTS GENERAL HOSPITAL. By Francis T. Hunter, M.D., Associate Physician and Clinical Pathologist, Massachusetts General Hospital, Boston, Mass. Third edition, thoroughly revised, published 1939, price—\$1.75. Philadelphia: Lea & Febiger.

This little laboratory manual, a third edition, has demonstrated its practicability in one of the outstanding hospitals of the country. It is a pocket size handbook of usable information from cover to cover.

GONORRHEA IN THE MALE AND FEMALE. By P. S. Pelouze, M.D., Assistant Professor of Urology, University of Pennsylvania, Consulting Urologist to Delaware County Hospital, Special Consultant to United States Public Health Service; Member of Board of Directors, American Social Hygiene Association and American Neisserian Medical Society. Third Edition, thoroughly revised. 489 pages with 144 illustrations. Philadelphia: W. B. Saunders Company, 1939. \$6.00.

This is a clear, comprehensive presentation of the subject.

THE GENUINE WORKS OF HIPPOCRATES. Translated from the Greek by Francis Adams, LL.D., Surgeon, With an Introduction by Emerson Crosby Kelly, M.D., Baltimore: The Williams & Wilkins Company, 1939.

The publishers have earned the gratitude of the medical profession in presenting this oldest medical work in such accessible form. The volume has been translated from the Greek by Dr. Francis Adams and there is an introduction by Emerson Crosby Kelly, M.D. The type is large, clear and readable. The volume as here presented makes an ideal gift for medical readers.

CLINICAL PATHOLOGICAL GYNECOLOGY. By J. Thornwell Witherspoon, M.A. (Oxon), M.D. (Johns Hopkins), Formerly Associate Professor of Experimental and Pathological Gynecology, Indiana University Medical Center, Indianapolis. Octavo, 400 pages, illustrated with 271 engravings, cloth, \$6.50, net. Philadelphia: Lea & Febiger, 1939.

The author declares that "gynecological pathology, like the pathology of any other tissue of the body, can only be known through handling of a large volume of material, repeatedly seeing the same condition over and over again in its various manifestations, and by continuous microscopic study of these diseases." The present volume is the result of a series of lectures based on the study of microscopic slides followed by clinical interpretation of the cause, the symptoms, treatment and prognosis. The arrangement is by anatomical location rather than grouping of similar diseases. In other words, the author deals with the infections and tumors of the vulva. The vulva, vaginal glands and then proceeds to pathological conditions of the vagina and then of the cervix. There is a section on anterior pituitary gonodotropic hormone, another on ovarian hormones, another on menstruation and its disorders, pathology of the endometrium, and pathology of the myometrium. There is an entire section on



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miscellaneous uterine disorders, then a section on pathology of the fallopian tubes and finally a section on pathology of the ovary. The work is profusely illustrated in both gross and microscopic specimens. It is heartily recommended not only to the obstetrician and gynecologist, but to the general practitioner as well.

DENTAL SCIENCE AND DENTAL ART. Edited by Samuel M. Gordon, Ph.D., National Research Council Fellow (Biological Sciences), 1926-1928; Director, American Dental Association Bureau of Chemistry and Secretary of the Council on Dental Therapeutics, American Dental Association, 1928-1937; and 19 contributors. Octavo, 731 pages, illustrated with 224 engravings. Cloth, \$9.50, net. Philadelphia: Lea & Febiger, 1938.

This book is adequately described by its title. As a specialty, the scientific phase of dentistry has the same intimate relation to general medicine and surgery as has, say, ophthalmology. The dentist will, of course, find this work one of great value, dealing as it does with the various scientific principles, underlying his art. For medical readers, however, we would emphasize its relation to medicine. It is as intimated in the title, a work of composite authorship, that is, a work of many minds coordinated by editorship. Among the authors of chapters, we might mention a few of purely medical interests, namely, B. P. Babkin, professor of physiology in McGill University, Theodore Cornbleet, department of dermatology, University of Illinois Medical School, M. H. Seevers, professor of pharmacology in the University of Wisconsin, and Edward B. Touhy, section on anesthesia, Mayo Clinic, Rochester, Minnesota. A number of contributors are connected with the science departments of medicine and dentistry in various first class medical institutions throughout the United States.

Among the subjects treated (again stressing the medical phases of the work) are Physiology of the Salivary Glands, Salivary Calculus, The Etiology of Vincent's Infection, The Clinical Aspects and Therapy of Vincent's Infection, Selected Diseases of the Mouth, Principles of Inhalation Anesthesia, Local Anesthesia—Theoretical and Applied, and Antiseptics and Disinfectants. The chapters on tooth development, experimental dental histophysiology, dental caries are all more or less a matter of importance to medicine. According to the editor, this work is the result of ten years evolution. It is, therefore, a book of mature thought by a group of scientists, well qualified to write on the various subjects to which they have been assigned. The text is well illustrated. Every progressive physician as well as dentist will profit by a careful reading of this work.

A TEXTBOOK OF SURGERY: By American Authors, Edited by Frederick Christopher, B.S., M.D., F.A.C.S., Associate Professor of Surgery at Northwestern University Medical School; Chief Surgeon, Evanston (Illinois) Hospital. Second edition, revised, 1695 pages with 1381 illustrations on 752 figures. Philadelphia and London: W. B. Saunders Company, 1939. Cloth, \$10.00.

The first edition of this textbook of surgery received a very cordial welcome by surgeons and physicians throughout the United States. A book of composite authorship has one supreme merit which can hardly be expected of a work of single authorship and that is, all phases of the subject (in this case, surgery) can be treated each by one who has devoted his major attention to the subject. Apart from authorship, the selection of contributors reflects the ability of the editing author. According to this standard, Dr. Christopher has produced a textbook that is unique in every way. Ordinarily, a textbook of composite authorship is difficult to revise, especially if the authors are numerous. It is difficult to get concerted action, so that sometimes revision is delayed. Christopher, however, appears to have overcome this obstacle for within the space

Jour. M.S.M.S.

of three years (1936, the date of the first edition), he has been able to accomplish a complete revision which speaks well for the efficiency of his collaborating staff. In the meantime, death had taken its toll. The contributions of deceased members, however, have been thoroughly revised or have been substituted by other contributions. Christopher's Surgery as it now stands will be welcomed more widely than ever.

MEDICINE AT THE CROSSROADS, by Bertram M. Bernheim, M.D.; William Morrow & Co.

The author might be dubbed the "Gloomy Dean of Medicine." He admits the efficiency of doctors in general, and he proclaims the marvelous advances of medical science in the last 50 years. But his bitter complaint is that the medical profession did not foresee the economic debacle of the last 10 years and organize, in advance, to render adequate medical service to all whom the depression removed from the ranks of paying patients.

Much of the picture of gloom in the book is overdrawn, but it is colorful overdrawing; and the high lights will startle many a doctor into renewed self-examination, renewed study of the problems today confronting the medical profession and the sick public.

Such sentences as these will prod the doctors into action, possibly to angry retort—but action, anyhow:

"The doctor doesn't want to be waked up. He has a vague idea that he might not be so comfortable. Doctors are peculiarly difficult to convince—about anything—and they resent interference of any kind, from any source. Scientifically, medicine has kept pace with the advance in other fields. But in other respects the men of medicine have not kept pace with the times."

Of course there are thousands of doctors who have kept pace with the times along with the author of the book; but they do not propose to solve the medico-economic problems of the people merely by upsetting proved methods of medical practice and trying experiments in state panel schemes of medical ministry which have lowered the quality of medical practice in other countries.

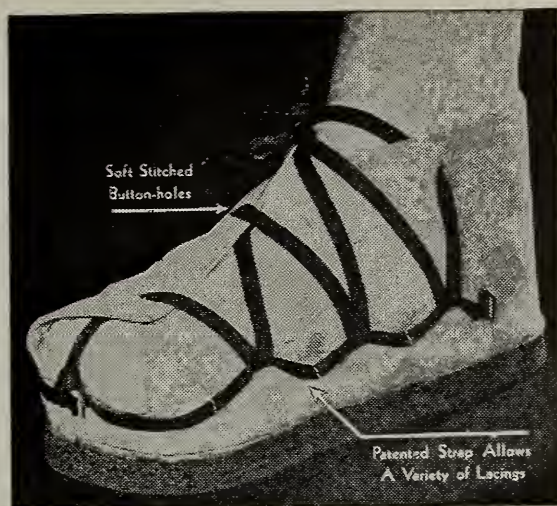
The majority of medical men in this country see that the problem cannot be solved by giving only one horn of the dilemma an experimental twist. There is the other horn—the economic, hard-prodding horn—for which the medical men do not feel responsible as a class. Therefore, they do not feel that revolutionary methods applied to medical practice will bring health and prosperity to the nation.

However, the quarrelsome motif of Bernheim's book is probably what the medical profession really needs to stimulate it to do more than it has in the past to provide medical care for low-income and indigent groups.—A. M. Smith, *Detroit News*.

LIFE AND LETTERS OF DR. WILLIAM BEAUMONT. By Jesse S. Myer, A.B., M.D., Late Associate in Medicine in Washington University, St. Louis; with an Introduction by Sir William Osler, ST., M.D., F.R.S., late regius Professor of Medicine in Oxford University, England. St. Louis: Price, \$5.00. The C. V. Mosby Company, 1939. (See editorial page 599.)

THE PATIENT AS A PERSON, A Study of the Social Aspects of Illness. By G. Canby Robinson, M.D., LL.D., Sc.D. Lecture in Medicine, Johns Hopkins University. New York: The Commonwealth fund, 1939. Price, \$3.00.

So often is the patient a case, or case number so and so, that this book should be welcomed by the physician who emphasizes the human and personal side of medicine as well as the scientific. Among



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the topics dealt with are elements of illness and the relation to medical service, Patients with Circulatory Symptoms, Patients with Respiratory Symptoms, Patient, and the Treatment of the Patient as a The Syphilitic, The Epileptic, the Psychoneurotic Patients, and the Treatment of the Patient as a Whole. These are all suggestive titles. Probably at no time is there greater need for a book of this kind when one considers the highly specialized and complicated organization of the medical service as it exists today. This book is very heartily recommended. Each one should procure a copy and take it on his vacation.

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Among Our Contributors

Dr. Jesse G. M. Bullowa is Clinical Professor of Medicine at New York University College of Medicine, Visiting Physician to Harlem Hospital and to Willard Parker Hospital, New York, N. Y. Since 1926 he has devoted himself to a study of the pneumonias, their epidemiology, etiology, course and treatment. His "Management of the Pneumonias" discusses at length serum therapy, chemotherapy and oxygen therapy.

Dr. John L. Law is a graduate of Edinburgh University, and received his pre-medical training at Emory University, Atlanta, Georgia. He was Junior Intern at the Royal Infirmary of Edinburgh, also Resident at the Royal Edinburgh Hospital for Sick Children, and Clinical Assistant at the Hospital for Sick Children, London. Dr. Law took postgraduate work at the Hospital for Nervous and Mental Diseases, London, following which he was resident in Pediatrics at the Grady Hospital, Emory University, Atlanta, and later, Chief Resident physician of the Children's Hospital, Denver, Colorado. He is a Licentiate of the American Board of Pediatrics and is Assistant Professor in the Department of Pediatrics and Infectious Diseases, at the University of Michigan Medical School.

Dr. W. S. Martin is a graduate of the University of Michigan Medical School, 1931. He interned at the Saginaw General Hospital, with special attention to surgery. In 1936, he took postgraduate work in Vienna, and is A. A. Surgeon of the U. S. Public Health Service. Dr. Martin is in general practice at Ludington, Michigan.

Carl Voegtlin, from 1905 to 1907 was in charge of the Metabolism Laboratory of the Johns Hopkins Hospital, and from 1907 to 1913, he was Associate Professor of Pharmacology at Johns Hopkins University. In 1913, he was appointed Chief of the Division of Pharmacology of the National Institute of Health, United States Public Health Service, and he is now Chief of the National Cancer Institute of the U. S. Public Health Service, Washington, D. C.

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PIONEER SANITARIANS IN MICHIGAN

EARL E. KLEINSCHMIDT, M.D., DR. P.H.

ANN ARBOR, MICHIGAN

Those early sanitarians with undaunted determination, started fearlessly on an uncharted sea, in a disputed and much doubted craft, but they knew that their voyage was one of human fate. Surrounded by shoals of discouragement and breakers of danger and despair, but with unfaltering faith and soulful vision fixed on the glorious goal of human welfare, it may be said to their everlasting credit and renown, they brought the good ship Sanitation through to the port of Fair Success in the haven of Hopes Attained.

—Henry A. Haigh, Dearborn.¹

The establishment of a State Board of Health in Michigan on June 30, 1873, was the result of a long, continuous struggle by public-spirited physicians and laymen to prevent and control the spread of disease. Ever since it became known to the early settlers that certain diseases were quite as much to be feared as the aborigines themselves, organized efforts were repeatedly put forth by the practicing physicians of the State to find means for their control. In general, people lived in great fear of malaria, smallpox, diphtheria, scarlet fever, and the many other diseases prevalent at that time, but attempts to halt their spread were largely ineffectual, sporadic, and based entirely on erroneous beliefs. No less a personage than Noah Webster popularized the idea throughout the nation that infectious diseases were caused by the emanations from such nuisances as decaying animal and vegetable matter. Once this idea was established in the public mind the solution to the problem usually took the form of legislation for nuisance abatement.

The first law ever written in Michigan to preserve the health of the people was placed on the statute books in 1831. At that time the Legislative Council of the Territory of Michigan passed a law forbidding the slaughtering of animals or the cleaning and dressing of them within eighty rods of the Detroit River. The following year saw the enactment of the first legislation designed to set up an organization for local health ad-

ministration. Because of its permissive nature, however, it was practically ignored by the people of the State. The same fate befell a law passed in 1846 creating the township, village, and city system of local health administration. In a word, very little legislation of any real permanent value relating to sanitary improvement was passed in Michigan⁵ during the first half of the nineteenth century. Speaking of the country as a whole, Smillie, in his book, *Public Health Administration*, states that, "The period from 1800 to 1850 was marked by rapid expansion of the country but little growth in public health knowledge or administration."

The period from 1800 to 1835 saw much of Michigan Territory pass from the hands of the Indians to those of white settlers.

With the attainment of statehood in 1837 Michigan witnessed a sudden influx of immigrants, which continued well into the twentieth century. In 1800, while still a virgin territory, it had barely 3,200 inhabitants; by 1830 its population had increased to 31,639; and by 1850 the number of inhabitants reached a total of 397,654 persons, an unprecedented increase.³ This multitude of people brought with them not only their cultural heritage and what few possessions they could carry, but disease as well.

Epidemic after epidemic¹³ swept Michigan during this period, most of them coming from European ports to New York City and thence westward to Michigan and other neighboring Territories and States. Cholera visited Michigan in 1832, 1849, 1850, 1865 and again in 1886. Smallpox, typhus fever and yellow fever also followed the human march westward. Each time the state was seriously threatened our forefathers entrusted their lives to the efficacy of prayer and sulphur fumes. So it was with almost every disease. It took time for these people to understand the merits of clean hands and clean homes, just as today people are slow in comprehending that fumigation, a relic of pagan incense-burning, is useless for destroying bacterial life.

While the early pioneers were busy carving homes out of the wilderness and combating these diseases, there were taking place in England and in several of the New England states, events of great significance to them and to others seeking an understanding of the cause of epidemic diseases. At a time in man's history when disease was generally associated with the activity of demons or the decrees of the Almighty, there arose a figure in England, Edwin Chadwick,⁸ whose efforts in behalf of sanitary reform were destined to have worldwide effect. A courageous person, he sought vainly to interest others in the need for preventive medicine, but his colleagues gave him little encouragement. He was thoroughly convinced that drainage, removal of refuse from streets and habitations, improved water supplies, proper ventilation, abatement of nuisances, and personal cleanliness were essential for preventing epidemic diseases and improving the health of Great Britain's laboring population. What is still more noteworthy was his advocacy of the principle that sanitation belongs within the

province of public administration. His famous report of 1842 on the sanitary conditions existing among the laboring population of Great Britain ultimately earned for him the well-deserved title of "Father of English Public Health." The establishment of the General Board of Health of Great Britain in 1848 is also credited to his efforts. But despite these significant achievements, history reveals his career to have been most tragic.¹⁴

Almost from the start of his public life, Chadwick was met by opposition to sanitary reform. Some of this was due to the cold indifference of his fellows towards matters of public health; but for the most part, it may be said that Chadwick created these difficulties by his own acts. Because of his contempt, which he did not hesitate to exhibit when encountering opposition to his plans, people soon looked with disfavor upon his work. Whenever opportunity presented itself, he denounced, with the greatest pleasure, the opponents of sanitary reform, regardless of their position in civil life. Although embittered by his long struggle over the Poor Law, and by the growing hostility of many of his colleagues, he set about soon after the creation of the General Board of Health to bring about widespread sanitary reform. Eventually, however, his enemies outmaneuvered him, and in 1854, by vote of Parliament, the General Board of Health was dissolved, and Chadwick put out of office. "Our modern Public Health system" (i.e., in England), writes Williams, "might have arisen from his brain. But he did not have the chance. His colleagues did not always trust him, and public opinion saw only a monster in human form who separated husband and wife in the new workhouses . . . Chadwick has been spoken of for so long as the father of English Public Health that we forget the evil twist which he gave it, and the tragic errors that have sprung from his arrogant dogmatism." Yet were it not for his struggle to bring about sanitary reform, England might have remained, like France, medieval in organized preventive medicine. He cleared the way for others who were to follow him. "If," as Williams further remarks, "from his brilliant assortment of gifts nature had not withheld the quality of tact, Chadwick would certainly have raised English preventive medicine to the level of accomplish-

ment comparable perhaps to the Navy."¹⁴ Simon, in his great work, *English Sanitary Institutions*,¹¹ is also inclined to place upon Chadwick's shoulders the mantle of greatness which he deserved, and excuses his mistakes as the results of over-eagerness. In 1893, at the age of ninety, long after his short but eventful public career, Chadwick received the official recognition of knighthood for his past services.

In John Simon, Chadwick's successor to leadership in English Public Health, the champions of sanitary reform gained the support of an astute statesman. A shrewd, persuasive person, his wisdom in dealing with matters of public health soon earned for him the plaudits of the very individuals who had been angered at the tactics of the over-zealous Chadwick.

When the bill for maintaining the General Board of Health upon an annual basis became a law in 1855, Simon was made its first medical officer. This appointment undoubtedly marks the turning point of his career, and, although he had already achieved professional reputation as a surgeon, his future accomplishments as a sanitarian and administrator were destined to be far brighter.

Notwithstanding his resentment at the transfer of the Medical Department to the Privy Council, and the consequent subordination of his position, his labors for sanitary improvement ultimately met with signal success. His genius lay in his remarkable ability as an administrator. Much of what is still considered fundamental in public health organization in England and the United States today may be credited to his creative thinking. His efforts to place the work of the medical health officer on a high plane gained for him the appreciation of public health officials everywhere. For these achievements Simon is often referred to as the patron of all medical officers of health.

The period during which he held the position as medical officer saw changes take place which had tremendous influence upon the future of the public health movement. First, there was the passage of the great Sanitary Act of 1866. Simon's early years in the Medical Department were largely occupied with the preparation of this legislation. Fortunately for his career, an epidemic of cholera hastened its passage through the House of Commons, and per-

haps this is one of the reasons why, to quote Simon, "the grammar of English Public Health Legislation acquired the novel virtue of the imperative mood." As a result of this Act it became the duty of local authorities to arrange for the inspection of their districts and to suppress nuisances.

The year 1872 saw the passage of the public health act which established a complete system of health authorities over the entire country independent of the Poor Law, a change which altered the entire course of Public Health in Great Britain. This was the first act of Parliament creating a distinct public health service.

But the most permanent achievement in state medicine to the credit of reformists of this period was the great Public Health Act of 1875, often referred to as the Magna Charta of English public health. This statute provided the foundation upon which most of the routine of Public Health Administration rests even to this day. It established the principle in Great Britain that preventive medicine should be separate from ordinary clinical practice.

Throughout this remarkable era in English sanitary reform, Simon labored unceasingly for the improvement of his department. His resignation in 1876 came as a distinct blow to the English Public Health Service, but his work continued to live. He had brought about constructive reforms which, if not very imposing, were far more lasting than Chadwick's work. He lived during a period which saw the early beginnings of the great movement in 1834 expand into one of the great departments of state. It had been his privilege to guide its development during the most trying years of English Public Health. Fortunately, he lived on into the modern period to see the public health spirit which he created accepted by governments and social reformers elsewhere.

During these two decades that saw the great awakening of the English people to the value of personal cleanliness as a remedial measure against various pestilences, "the people of the United States," writes Smith, "remained profoundly apathetic in relation to all questions of improvement of the public health and the prevention of epidemics."¹² A few cities had established health organizations during the early half of the nineteenth century. Most of them

based their practices on information which had filtered across the Atlantic. For the most part they were chiefly concerned with the construction of sewers, drainage of marshes, burial of the dead, and the planting of trees and vegetables. There were, however, some few students of sanitary science in different parts of the country who strove from time to time to awaken public interest in sanitary improvement of the home and municipality; but, in general, little progress was made.¹⁰

As was true in Great Britain, the movement for the establishment of public health institutions in the United States was due largely to the efforts of a few brilliant individuals. But for the struggles of Lemuel Shattuck of Boston and Dr. Stephen Smith in New York City this movement might have been indefinitely delayed in the United States. Of almost incalculable influence on the progress of the public health movement in the United States was the work of Shattuck, founder of the movement for the establishment of state boards of health, and Smith, indomitable leader for municipal sanitary reform. Truly, it may be said that organized public health work in the United States owes its origin to their pioneer successes.

While still a young man, Shattuck⁶ showed signs of his creative genius. He exhibited an intense interest in the collection and tabulation of data, a habit which undoubtedly led him to write what is generally regarded as an excellent history of Concord, Massachusetts. Interest in his family tree led him to compile his own genealogy. It was this zeal for finding facts and compiling them which led him eventually to make his many contributions to sanitary advancement.

In 1837, his plan of arranging, printing, and preserving the Boston city documents was put into effect, and, as a result of his efforts, an act was passed in 1842 establishing the system for enumerating births, marriages and deaths in the city of Boston. His interest in statistics led him further to advocate and, in 1845, to carry out a sanitary survey of the city of Boston. His work in this survey, which is often referred to as the "Census of Boston in 1845," was considered so effective that he was later permitted to draw up an Act of Congress which gave Federal authority for the census. It was this undertaking which revealed to him

for the first time the vast amount of sickness existent among the people. It startled him into new and significant activity.

At his instigation, the American Statistical Association appointed a committee in 1848 to urge the legislature of Massachusetts to make a sanitary survey of the entire state. As it happened, Shattuck was a member of the legislature at the time, and he worked assiduously for the passage of the Act. In this he was ably assisted by members of the Massachusetts Medical Society, and as a result of their combined efforts an act appointing a Sanitary Commission was passed on May 2, 1849. Perhaps because of his great interest in the plan and his knowledge of statistical practices, he was honored by being named chairman of the Commission. The report which followed a year later was the type of document one might expect from a person of his talents. It was monumental in its significance, providing the cornerstone for public health work in the United States. The document seems all the more remarkable when we realize that Shattuck was a layman, and that he prepared this famous document practically unassisted. Some idea of his broad understanding of the health problems existent at that time may be gained from the following statements appearing in the introduction to the Report:

We believe that the conditions of perfect health, either public or personal, are seldom or never attained, though attainable; that the average length of human life may be very much extended, and its physical power greatly augmented; that in every year, within this Commonwealth, thousands of lives are lost which might have been saved; that tens of thousands of cases of sickness occur, which might have been prevented; that a vast amount of unnecessarily impaired health and physical debility exists among those not actually confined by sickness; that these preventable evils require an enormous expenditure and loss of money, and impose upon the people unnumbered and immeasurable calamities, pecuniary, social, physical, mental, and moral, which might be avoided; that means exist, within our reach, for their mitigation or removal; and that measures for prevention will effect infinitely more than remedies for the cure of disease.⁹

Shattuck's remarkable foresight is evidenced in the fact that this now famous document remains even in our day a model of completeness. His recommendations were so comprehensive in nature that some of them have yet to be carried out. In the report he appealed for new laws to establish both local and state boards of health.

Authority for the quarantine of ships was suggested. Supervision of the insane was to be assigned to state boards of health. Public registration of births, deaths, and marriages was advocated. In brief, his recommendations touched upon nearly every field of public health.

On April 25, 1850, this document was given to the General Court with a bill advising its adoption. Tragically enough, both were tabled, and Shattuck died in 1859 before the report was finally resurrected to be used as a guide by the founders of the State Board of Health of Massachusetts nineteen years later.⁶

During this same period, there were taking place in New York City similar events which were destined to culminate in the passage of the most complete piece of municipal health legislation ever placed on the books of any municipality—the Metropolitan Health Bill. The passage of this Bill in 1866 had a profound effect on sanitary practices in New York City and in other large cities which adopted similar legislation. Within a decade nearly every large municipality in the land had its health laws and sanitary ordinances, and a competent authority to enforce them. For this remarkable advancement the American people are indebted to Dr. Stephen Smith of New York City, whose achievement and brilliant personality are vividly revealed in his book, *The City That Was*.

The passage of the Metropolitan Health Bill in New York City and the establishment three years later of the Massachusetts State Board of Health mark the beginning of a new era in municipal and state health organization in the United States. Within a year Dr. Thomas M. Logan of California put through the legislation almost single-handed in that state which brought into being the California State Board of Health, the second of its kind. With its establishment² in April of 1870, he became its first secretary. In 1872, still another State Board of Health was established, this in the State of Virginia, and in 1873 Michigan became the fourth state to adopt the plan.

The story surrounding the establishment of the Michigan State Board of Health is most fascinating. Encumbered by almost impenetrable forests and dense undergrowth, and having roads hardly deserving the name, the inhabitants of Michigan faced sufficient-

ly grim obstacles in their physical environment, without the illness and disease which were added to their hardships. Were it not for the foresight and intelligence of certain practicing physicians⁵ in the state, it is doubtful that Michigan would have emerged from its unsanitary conditions as early as it actually did. But it is remarkable enough that the movement for sanitary reform should have found the strong adherents it did in a state as new as was Michigan in 1873.

Inspired by the tremendous advances in sanitary legislation occurring in the East, these pioneer sanitarians—Dr. Henry B. Baker, Dr. Ira H. Bartholomew, Dr. Robert C. Kedzie, and Dr. Homer O. Hitchcock, and their many friends—set about early in 1869 to enlist support for similar legislation in this state. To their efforts and those of their many adherents, the movement for the establishment of a state board of health in Michigan owes its birth.⁴ These men were not solely physicians. They were exceedingly courageous, brilliant and industrious leaders—men imbued with ideals that ultimately earned for them the title, "saints and apostles of the 19th century."⁷

Pre-eminent among them was Dr. Henry B. Baker. He was a quiet and unassuming figure, and is the man whom history will record as the *father of public health work in Michigan*.⁴ To him belongs the credit for initiating this humanitarian movement in our state. His genius and boundless energy kindled in others the ardor which ultimately led to the establishment of the State Board of Health, and which carried it through the vicissitudes of its early years. He devoted practically his entire professional life to his state—a period of thirty-five years, during which he dedicated himself zealously to the task of saving lives and preventing misery among the people of Michigan.

It was Dr. Baker's experience as an army surgeon during the Civil War which undoubtedly gave him his ideas for a state health service. He was not unaware, however, of the movement for sanitary reform in the states of Massachusetts and New York. As MacClure points out, "the move for a State Board of Health would have been less vigorous had it not been that similar action had been taken in Massachusetts."⁵ As a regimental surgeon, Dr. Baker received extensive instructions from the

Surgeon-General's office, all of them relating to the prevention of sickness. Evidently greatly impressed by the efficiency of army life, he returned to his home, following his discharge, imbued with the idea that lives could be saved on a large scale by centralizing public efforts at improving health in a state public health service and educating the public in the prevention of disease. The movement in Massachusetts only served to crystallize the ideas which Dr. Baker had in mind.

So enthusiastic was Dr. Baker over the possibilities of his plan, he could not be restrained from telling others. His partner in medical practice, Dr. Ira H. Bartholomew, was the first to be consulted. But Dr. Bartholomew, kindly man though he was, paid little attention at first to his over-zealous young partner; on one occasion he was led to reply to Dr. Baker, "One man can do nothing."⁵ To Dr. Bartholomew such a plan was unthinkable at so tumultuous and exciting a time, with people's thoughts and energies concentrated upon the problems of post-war reconstruction. Under these circumstances some men would have faltered, but not Dr. Baker. Aided somewhat by the success of the movement for the registration of vital statistics, and his opportunities to contact others while State Registrar of Vital Statistics, he persisted. During medical meetings he fairly bubbled over with his ideas, offered resolution after resolution purporting to show the reasonableness of his plans. But few of his colleagues paid much attention to him. Had not Dr. Bartholomew finally become convinced that Dr. Baker's plans were practicable, it is uncertain just how events would have shaped themselves. It is of historical importance, however, that the enthusiasm of these two men spread to others in the State Medical Society, for out of this enthusiasm came the impetus which finally led to the establishment of the Michigan State Board of Health. Fate decreed, however, that Baker should play a leading role in the future activities of the Board as its secretary; ironically enough, Dr. Bartholomew was eliminated because of a constitutional provision stating that no member of the legislature could receive an appointment to a board created by the legislature of which he was a member.

During his entire career as secretary of

the State Board of Health, Dr. Baker was ever the energetic student seeking and devising new ways for dealing with the problems which confronted him. His quiet, scholarly habits enabled him to overcome the many obstacles in his work, some of them man-made. In the face of efforts made by unscrupulous business men or disgruntled legislators to have him removed from office because of his exposure of frauds and unhealthy conditions, he struggled on, often against almost insuperable odds. Had it not been that he was possessed of almost superhuman energy, it is doubtful whether the Board would have made such an outstanding record.

Neither orator nor politician, he rarely took the floor in debate unless the subject under discussion concerned his immediate work or some academic problem relating to his field of interest. On these occasions his remarks compelled the attention of all who heard him. Entirely devoid of the spectacular, his speeches were straightforward and businesslike, his language crisp and serious.

In appearance Dr. Baker was quite unassuming, yet his face fairly radiated his strong will and the boundless energy which he possessed. While at his office he was nearly always to be found attired in a frock coat. He was exceedingly neat of person, and his appearance lent a dignity to his office which few others could hope to emulate. In the small corner of a room in the state capitol building, where he worked, he often sat for hours at a time deeply immersed in the problems which confronted him. This was his workshop, as he referred to it.

As the work of the Board became known elsewhere, his ability was widely recognized in sanitary and medical circles, and he was frequently tempted to direct a part of his energies into other promising occupations, some of them far more remunerative than the one to which he was devoting himself. However, he continued to give his whole time and energies to the state in return for a very small salary, so meager a salary, in fact, that he had little left on retirement.

During the thirty-five years that he served his state, many honors⁵ were bestowed on him. He was made a corresponding member of the French Society of Hygiene in June, 1884, and later an honorary member. In 1890, the American Public Health Association honored him by elevating him to the

presidency. At one time he was vice-president of the American Social Science Association. He was frequently referred to by his colleagues in this country and abroad as "the efficient secretary of the Michigan State Board of Health." His original ideas and methods for the administration of public health brought him recognition from various sources. The centralized plan for public health administration, or the "Michigan Plan," as it is often referred to, was a product of his genius, an achievement that was copied by the majority of the states setting up boards of health after 1873. Michigan may well be proud of his distinguished record and the influence which he exerted on others of his time.

In Dr. Ira H. Bartholomew, Dr. Baker had a friend who not only listened to his plans, but who also labored in his behalf. Dr. Bartholomew took a keen interest in the ideas of his friend and colleague, and with his election to the legislature as a representative from Ingham County in 1872, he set about to secure the passage of the bill establishing a state board of health. His success in this venture marked the climax of his public career—a fitting achievement for a man of his ability.

Dr. Bartholomew was a man of strong individual tastes and habits, characteristics which made him a leader as well as a steadfast friend of many of his associates. Beloved by children, who flocked around him whenever he appeared in public, and admired by those adults for whom he cared, he had comparatively little difficulty in rallying supporters to the cause of sanitary reform. His large practice brought him in contact with many of the leaders of official Lansing, and the friendships he made in this way undoubtedly had much to do with his political successes. Three times the people elected him their mayor. In 1868, he was named president of the Central Michigan Agricultural Society. In 1870, the Michigan State Medical Society named him its fifth president; and in 1872 he was elected to the legislature by the people of Ingham County. This last office he undertook primarily to secure the establishment of a State Board of Health.⁵

Undoubtedly much of his success may be attributed to his great personal charm and lively intellect. While to the world at large he appeared to be somewhat dignified,

though a voluble physician, yet within the homes of his clients he endeared himself by his genial, sparkling wit, and his knowledge of the better things in literature. He was indeed a man of ripe learning, very bookish, an excellent physician, and withal inclined to be friendly to everyone. Both his fondness for people and his intellectual vigor led him, whenever occasion arose, to take an active part in friendly debate.

According to some of his acquaintances, Dr. Bartholomew was decidedly handsome in appearance, which no doubt helped to enhance his popularity. He was described as being rather tall, spare, dark-haired, dark-eyed, and red-bearded. His nose was large and aquiline. On ordinary occasions his attire was entirely conventional. However, on formal occasions he embellished himself with a silk hat, long black coat, and a figured silk waistcoat.

In some ways he was regarded as something of a radical. He used to boast among his immediate friends that he was the first man in Lansing to read Darwin's *Origin of Species*. He rejected all orthodox Christian creeds, and, if chided, he would rise to the occasion and declaim against hell, the fall of man, vicarious atonement, predestination, and other canons of the faith. One must not assume from this, however, that Dr. Bartholomew was a man inclined to be coldly rational and unsympathetic. Actually, he was very tender-hearted. He loved children, and when there were no patients who required his attention, he would retire to the rear of his office where, in a fully-equipped carpenter shop, he took great joy in carving whistles, bows and arrows, kites, and other playthings which he gave to the neighbors' children. As a result they came to his office in large numbers. Occasionally, he entertained them with tunes produced by a fiddle of his own making, and it is said that he could wield the bow with great dexterity. But pious mothers, hearing of his views concerning religion, were quick to warn their children not to visit the doctor's office because he was "a wicked man who did not believe in hell."

All during his public career he was greatly incapacitated by rheumatism. A pulmonary disturbance also caused him much distress at times. All through the winter months he resorted to buckskin underclothes to protect himself against the cold which

he feared. While indoors he kept the temperature in his office hovering in the neighborhood of ninety degrees Fahrenheit. It is said that he always feared the day when his lungs would "go wrong" for he said that he would die of pulmonary trouble. This fear eventually proved to have been well founded.

Notwithstanding his several eccentricities and his endearing sentimentalities, Dr. I. H. Bartholomew¹ exerted a leader's influence on physicians and laymen alike during the years he and his colleagues struggled for the creation of the State Board of Health.

Fortunately for Dr. Baker and Dr. Bartholomew, they were greatly assisted in their efforts by Dr. Robert C. Kedzie, professor of chemistry at Michigan Agricultural College in East Lansing. While Dr. Baker went about endeavoring to interest others in his plans, and Dr. Bartholomew strove to introduce a bill into the legislature for the establishment of a state board of health, Professor Kedzie did his utmost by lecture and demonstration in the legislative halls to convince the law-makers of the existing dangers arising from the use of poisonous wall paper, water contaminated with the causative agent of typhoid fever, and dangerous illuminating oils. To lend reality to his lectures he frequently resorted to the use of experiments to show the explosiveness of kerosene oils that were brought into the state, all of which served most effectively to demonstrate the material reasons for the proposed health legislation.⁵

With the establishment of the State Board of Health, and his appointment as one of its first members, Dr. Kedzie continued his interest in illuminating oils. It being apparent to him that the life and health of the people were being jeopardized by reason of these inflammable oils, he undertook the examination of samples from various parts of the state. The results of these researches were made known by him in an article published in the annual report of the Board for 1873. This is especially noteworthy since it had an important bearing on subsequent action of the Board and Legislature.

Another problem which engaged his attention was the use of arsenic in wall paper and in paints. It was a common practice among manufacturers of paper to use arsenic in the coloring of wall paper. It was also used to color paints which were applied

to pumps, cups, pencils, and children's toys. Dr. Kedzie's interest in this subject was aroused when it came to his attention that people using these articles acquired a "mysterious" illness which was thought by many to be consumption. Several persons were reported to have succumbed to the ailment. With his discovery of the relation of the complaints to the presence in the home of green wall paper and the consequent disappearance of complaints when the paper was removed or the person made to sleep in other quarters, he published a book, *Shadows from the Walls of Death*.⁵ This was placed in numerous ladies' libraries for the purpose of informing the people throughout the state of the danger, and the exact kinds of wall paper which were dangerous.

These investigations and many others performed by Professor Kedzie aroused great opposition among the oil companies, paper manufacturers, and other commercial interests concerned. As a consequence, he, and for that matter the entire Board, was much maligned by representatives of such firms. Repeated efforts were made to have Professor Kedzie and his associates on the Board removed from office, but, fortunately for the people, all of these attempts were unsuccessful.

Besides his investigation of inflammable oils and poisonous wall paper, Professor Kedzie made for the Board other equally exhaustive studies of the magnetic condition of mineral wells in the state, the relation of soil water to health, meteorological conditions, outbreaks of food-poisoning, school hygiene, and other kindred problems related to the public health. He was also renowned the country over for his chemical investigations of agricultural problems.

Dr. Kedzie⁵ was known generally as a big man both physically and mentally. He had a large head, high brow, firm chin, prominent nose, blue, penetrating eyes, and a countenance which was kindly. He was both quick in wit and in speech. His heavy voice enabled him to be heard very readily whenever he made one of his numerous speeches. It is small wonder that, with characteristics such as these, he was enabled to withstand the hardships and criticism which he encountered in his investigations as a member of the Board. His was a dynamic personality unaffected by the petty

annoyances caused by disgruntled persons and men of lesser intellect.

If one may judge from his many achievements, it may well be said that the Board was fortunate indeed to have a man of his capacity as one of its first members. Some thirty-two valuable papers on questions of public health testify to his keen interest in the work of the Board. His travels in its behalf took him to all parts of the State, and he was in constant demand at sanitary conventions. He was appointed for a third term to the Board on March 22, 1881, by Governor Jerome but declined at the request of the State Board of Agriculture of the Michigan Agricultural College. His loss was keenly felt by his colleagues, as may be judged by their resolutions of regret upon his retirement.

In addition to the many honors which came to him during the eight years he served as a member of the State Board of Health, he received many others which attest still more to his greatness. In 1867, he represented Ingham County in the Michigan Legislature. In 1874, he became the ninth president of the Michigan State Medical Society. While a member of the State Board of Health he was made its president for a period of four years. At various times he was president of the American Public Health Association and the Sanitary Council of the Mississippi Valley, vice-president of the American Medical Association and the American Association for the advancement of Science. He was also a Fellow of the American Academy of Medicine. In 1898, in recognition of his eminent services as a scientific investigator and of the high positions he attained during his career among scientists of the United States, the honorary degree of Doctor of Science was conferred on him by the Michigan State Board of Agriculture. He was truly a great man, and a brilliant contributor to the progress of the public health movement in Michigan.

The fourth member of this remarkable group of personalities, Dr. Homer O. Hitchcock, also played a most significant rôle in the events surrounding the creation of the State Board of Health. He was a man of unusual general cultural and professional attainments. As a result, he was held in high esteem by friends, including laymen as well as professional colleagues. He had an ex-

tremely large practice in Kalamazoo; people came from miles around to secure his services. As one of Michigan's leading surgeons, he attained a position of prominence which he maintained almost up to the year of his death. His greatest delight in life was his work, the practice of medicine and surgery.

Having taken a leading part in the movement for sanitary reform as president of the Michigan State Medical Society, he was honored by Governor Bagley in being the first-named member of the State Board of Health. At the Governor's request he was asked to organize that body, and in deference to his position of leadership, the newly constituted Board named him its first president. He served the people of the state with great credit to himself until 1880, at which time, because of a feeling that he could not longer spare adequate time from his practice, he resigned. During the years that he remained a member of the Board he devoted himself wholeheartedly to the task of improving the public health. His chief work on the Board was in connection with the education of the people to the dangers resulting from the use of alcohol.

Whenever he conceived anything to be a duty, its performance became to him a necessity. It was this spirit which characterized his work during the years of his association with the Board. He conducted the work of the Board with a dignity which only a man of his culture and position in life could have given to it. Had it not been for his dauntless spirit, the work of the Board might have collapsed on several occasions because of the opposition and taunts of commercial interests. He, however, infused his own courage into members of the Board when conditions appeared unfavorable to their progress, and he succeeded in holding them together during this most critical period in the Board's history. He filled a place which only a leader of his stature could have done.

Dr. Hitchcock was the typical polished gentleman of the old school, dignified, polite, well-dressed, and extremely pleasant. Few persons ever came to make his acquaintance, it is said, without forming a genuine liking for him. He was extremely zealous in his work as a member of the State Board of Health; nearly every meeting found him taking an active part in the

program. Although encumbered somewhat by an unfortunate habit of stammering, he let nothing stand in his way during general debate. His clear, mellow voice was to be heard frequently on such occasions despite his handicap. His pleasant manner and affable nature secured for him many friends, friends who stood by him while he and his colleagues struggled to promote the work of the State Board of Health.

Such, in brief, is the story of the men whom history records as having pioneered in the establishment and early accomplishments of the Michigan State Board of Health. Needless to say, they did not work alone, nor could they have accomplished what they did had it not been for the pioneer work of others, or the labors of friends who, like themselves, believed implicitly in their cause. Among the more prominent of these people, the following names deserve to be mentioned: Dr. W. E. Jenks of Detroit, Dr. A. B. Palmer of Ann Arbor, Senator H. H. Wheeler of Lansing, The Hon. L. D. Watkins of Manchester, Dr. Manly Miles of Lansing, Dr. A. F. Whelan of Hillsdale, Stephen D. Bingham of Lansing, Dr. S. S. French of Battle Creek, Benjamin B. Baker of Lansing, Dr. E. J. Bonine of Niles, Dr. H. H. Beech of Coldwater, Dr. George E. Ranney of Lansing, Dr. Henry F. Lyster of Detroit, Rev. John S. Goodman of Saginaw, Dr. Zina Pitcher of Detroit, Dr. Henry Taylor of Mt. Clemens, Dr. S. L. Andrews of Romeo, Dr. J. H. Kellogg of Battle

Creek, Dr. J. H. Jerome of Saginaw, Dr. Zenas Bliss of Grand Rapids, Dr. Arthur Hazelwood of Grand Rapids, Rev. Charles H. Brigham of Ann Arbor, Rev. Daniel C. Jacones of Pontiac, and the Hon. LeRoy Parker of Flint.

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INCIDENCE OF IDIOPATHIC HYPERTENSION IN THE YOUNG

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There is a tendency on the part of the practitioner of medicine to regard malignant or idiopathic hypertension as a disease of the forties, with the exceptional case that which appears in earlier life.

The question arises in my mind whether this choice of an age group may not be due to the fact that blood pressures are infrequently taken in the case of the younger individual. In other words, as we become older intercurrent conditions arise, or symptoms develop which take us to the physician for the express purpose of "having our blood pressure taken." This hypertension is then discovered and attributed to the age of the patient whereas an earlier examination might very possibly have at least disclosed a beginning hypertension of less severity.

In the consideration of this phenomenon,

I was particularly fortunate in being placed in the position of examiner for over 10,000 women, between the ages of twenty and thirty, over a period of ten years while serving as Medical Examiner for the Board of Education of the City of Detroit.

These women, in the great majority in good health, many in fact giving exceptional histories, were recent college graduates, applying for positions as teachers.

Among other outstanding observations was this variation in blood pressure, for while the majority ranged around 120 mm. of mercury systolic and under, about one in twenty showed a rise of from twenty to thirty millimeters or more. These rises in systolic pressure were not psychic as a rule but rather persistent over a series of tests.

In only about 0.1 per cent was any causative factor isolated, though in each case a careful urinalysis was made and further tests where possible. Of course, aside from those whose systolic tension was 200 mm. or over and those engaged in Health Education little further study could be made.

The first case of this sort to come to my attention, and probably that which attracted my interest in this factor, was that of a friend. Her condition was accidentally discovered in the course of a routine examination for gymnasium work and she was referred to me as her personal physician.

Case 1.—Miss H. was twenty-six years old when she came to me in October, 1922. She made no complaint of any description. Her grandparents on both sides were living and well, all being in their late seventies and eighties. Her father was living and well and her mother living but personal knowledge of the case gave me the information that she had a similar hypertension which when discovered at the age of forty-eight was 240/100 mm. One brother was living and well.

A complete physical examination failed to disclose any pathological or neurological cause for the hypertension. The weight was 118, height 5.6, pulse 80, temperature 98.6, blood pressure 150/80, urinalysis and blood examination negative. Examination of the fundus oculi showed no change in the retinal vessels. She was advised to avoid unnecessary exertion and to keep careful track of her condition.

I am only recording a few of these calls. January 21, 1929—Patient reported for regular check and it was found that while her blood pressure was only 135/80 mm., her hemoglobin was 50 per cent and the red cell count only 2,830,000. Actinotherapy, together with iron and arsenic subcutaneously, was instituted with prompt response. In May of the same year, she had a red cell count of 4,210,000 with

the hemoglobin 85 per cent and her blood pressure had returned to 155/80 mm. In June of this year, the mother had a severe cerebral hemorrhage without having developed any prodromal symptoms. February, 1930—Hemoglobin 50 per cent, red blood cells, 3,500,000, blood pressure 165/90. Treatment was again instituted and in March the blood count had risen to 5,360,000, the hemoglobin to 90 per cent and the blood pressure was 160/80 mm. June 5, 1930, the mother died of a second cerebral hemorrhage. September, 1931, patient complained of difficulty sleeping. Blood pressure 165/100 mm. November, 1931, insomnia continued. Blood pressure 165/75 mm. January, 1933, blood pressure 180/100. Patient was advised to take a vacation of a few weeks. She showed no improvement. Still no symptoms except insomnia.

As has been seen, at intervals during these years, a secondary anemia developed and since there was a mild menorrhagia it was decided to administer a small dose of radium. At the time of examination prior to this operation a fair sized benign breast tumor was discovered and immediately removed. The radium was inserted at this time. Following this operation in 1935, the patient was put on small daily doses of luminal and nitroglycerine and since that time, under this medication, the blood pressure has remained between 130 mm. and 150 mm. systolic. The menorrhagia reacted to the treatment though she still has regular menses. Her insomnia has disappeared, her weight is 136 and her general health good.

The above is the only case I have been able to follow. In the 500 other cases isolated we were able to get only meager histories and routine examinations. Only twenty returned for re-examination following illness or some other form of leave-of-absence but these consistently showed the total absence of symptoms and gradual increase in tension pictured in the case of Miss H.

An interesting sidelight on the case of Miss H., which may or may not have bearing, is that, on the distaff side, the family carries a quite typical history of hemophilia, attacking only the males and appearing every second generation. The mother's brothers died of hemophilia in early youth, she has a perfectly healthy brother but a first cousin has one son who is hemophiliac.

The absence of any "follow-up" in these cases lowers the value of the information but the presence of this factor in so many otherwise normal individuals opens a field for conjecture and investigation.

Beaumont Foundation Lecture

THE SPECIFIC THERAPY OF THE PNEUMONIAS*

II. Serum Therapy of the Pneumonias

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The evolution of serum therapy for the pneumonias is a fascinating chapter in the history of the application of knowledge to the cure of disease; the most important events in that development are here chronicled.

Following identification of the pneumococcus as the etiological agent of pneumonia, by Pasteur and Sternberg, a considerable amount of interest was naturally displayed in the organism, its cultural, biochemical and immunological properties. Pioneer work in this direction was carried out by Weichselbaum, by Fraenkel and by Friedlander; this careful descriptive work paved the way for the researches of Neufeld. Neufeld's work with the immunologic characters of the organism was the foundation for the development of serum therapy. In 1891 the Klemperers had already demonstrated that animals susceptible to pneumonia might be rendered resistant to infection by preliminary injections of spaced doses of pneumococci, beginning with dead organisms. They showed at that time that a small amount of serum from such an injected animal, if simultaneously given with a fatal dose, would protect a second susceptible animal. Little effect was obtained when the serum was given afterwards. As a consequence of such observations, and with the growing interest in the field of immunology, attention was focussed upon these humoral mechanisms which obviously played a part in recovery. The Klemperers applied this in practice as did Elser in New York. In 1902 Neufeld and his coworkers demonstrated that, at the time of crisis, substances appeared in the serum of pneumonia patients capable of protecting mice. Soon Neufeld prepared a serum for the pneumococcus by injecting a horse with spaced doses of a pure pneumococcus strain. He discovered that his serum was effective in agglutinating only some of a series of pneumococcal strains. These observations were the first evidence of serologically distinct pneumococcus types. Neufeld, interested in the possible application of his serum to the treatment of the disease, thought to solve the problem of multiple types by preparing a

polyvalent serum against several discrete strains. By this time, too, Clough and Dochez had confirmed Neufeld's observations and Clough demonstrated that immune serum stimulated phagocytosis. Cole and Dochez undertook a more careful study of the various pneumococcus strains and succeeded in establishing the identity of pneumococcus I, II and III and the existence of a fourth group of unidentified strains. These were later classified by Cooper and her coworkers. Sera were prepared against the first two types, the third having been found antigenically poor in horses. Treatment was initiated in a few cases at the Hospital of the Rockefeller Institute. By this time, several German clinicians had been attempting the treatment of the disease with Neufeld's serum, and met with little success. Neufeld and Ungerman, working with pneumonia produced by injections of pneumococci into the lungs of guinea pigs, showed that such infections could be cured by injecting enough serum if treatment was started within 3 hours. From their further work on threshold concentration, it quickly became apparent that an insufficient dose was being prescribed for patients. In 1919 Cole reported the first series of cases treated in this country; fourteen of type I and three of type II,—one died in each group. There had been eight bacteremic cases and in all the blood cultures were sterilized after one treatment. Cole's series had been treated with the larger doses indicated by Neufeld's work. An outbreak of pneumonia in an army camp had shown extremely poor results with serum treatment. An analysis

*Part I appeared in the July, 1939, issue of THE JOURNAL.

of the method of treatment by Cole revealed that the dose had been inadequate and late.

Just as there had been considerable interest in the humoral response of the patient recovering by spontaneous crisis, much attention was now paid to the immune state of the serum-treated patients. Dochez soon demonstrated that the serum of treated patients showed the presence, in considerable amounts, of protective substances shortly following the administration of one dose—even though the serum had been administered early in the disease, at a period when such protective substances are not otherwise present.

The importance of humoral factors in recovery from pneumonia, as the basis for serum therapy, now seemed established. New problems presented themselves as study and observation broadened, particularly when the disease was reproduced in higher animals. Blake and Cecil, in 1920, adopting an unpublished technic of Opie, produced a pneumococcus lobar pneumonia in monkeys by non-traumatic intratracheal injections. Certain observations were made by them on the experimental disease which today are duplicated in studies on patients; observations which indicate the complexity of the recovery phenomena in pneumonia. They describe monkeys in whom a crisis occurred with pneumococcus septicemia persisting for forty-eight hours after crisis. In several instances, a critical fall in temperature occurred about the seventh to ninth day with subsequent return of fever and death several days later. Autopsy here revealed resolving pneumonia and apparently persisting pneumococcal sepsis. Pneumococci might, in other cases, disappear from the blood, but crises failed to occur and the monkeys died showing unresolved pneumonia and pneumococci present in the lung. Mechanisms other than humoral were apparently necessary for recovery.

It became evident that lobar pneumonia could occur in the presence of normal pneumococidal activity of the blood and Blake and Cecil observed that monkey serum might be entirely free from protective antibodies and yet such an animal might possess a high degree of immunity against pneumonia. On the other hand, the serum of a vaccinated monkey might protect mice against 100 or even 1,000 lethal doses of pneumococci and the monkey might be sus-

ceptible to pneumococcal pneumonia. Blake and Cecil, and more recently Robertson, came to look upon the disease as two distinct processes, a local lesion and a generalized infection. Though ultimate recovery must depend upon the ability of the individual to prevent or terminate the general infection (humoral immunity), it does not follow that recovery from the local process after resolution of the pneumococcal consolidation need be either coincident with recovery from the general infection or dependent upon the same mechanism. In fact, it seems well established that recovery from the general pneumococcal infection precedes, by several days, recovery from the disease by crisis. In this regard, of course, it is well known from Rosenau's earliest observations in the early 1900's, that a bacteremia was of common occurrence in the early stages of the disease and might subside several days prior to the actual critical recovery. Blake and Cecil concluded that it seems not improbable that at least a dual mechanism may be concerned in bringing about final recovery from lobar pneumonia. It might not be unwarranted, at this time, to indicate that these local recovery factors are far more mysterious than the humoral and less susceptible to the kind of controlled observations which are made on humoral mechanisms. For that reason, studies on serum responses and behavior far exceed those on the factors involved in local recovery.

Concerning these aspects of pneumonia, Simon Flexner, in 1911, in an introduction to a paper by R. V. Lamar, made the following observations: "The phenomenon of recovery from any local bacterial infection has not been fully explained and it is not wholly accounted for by the several activities of blood serum and phagocytes which have often been viewed as gradually overcoming and removing the offending and bacterial agents. Indeed, this restrictive view has never been fairly established either by direct observations upon human beings or animals, or through experiments, and it leaves out of account the effects of certain chemical substances other than antibodies, which are always present in a focus in which tissues and cells are disintegrating." Lamar studied the effect of soaps on pneumococci and found that only in the presence of immune serum was the lysis of soaped

organisms complete. With non-immune serum, lysis was only delayed. Immune serum alone did not cause lysis. Whether sulfapyridine will confer a new power on

same token a physician should not wait for definite tubular breathing with an involvement of lobar configuration in order to diagnose lobar pneumonia. A chill, rise of

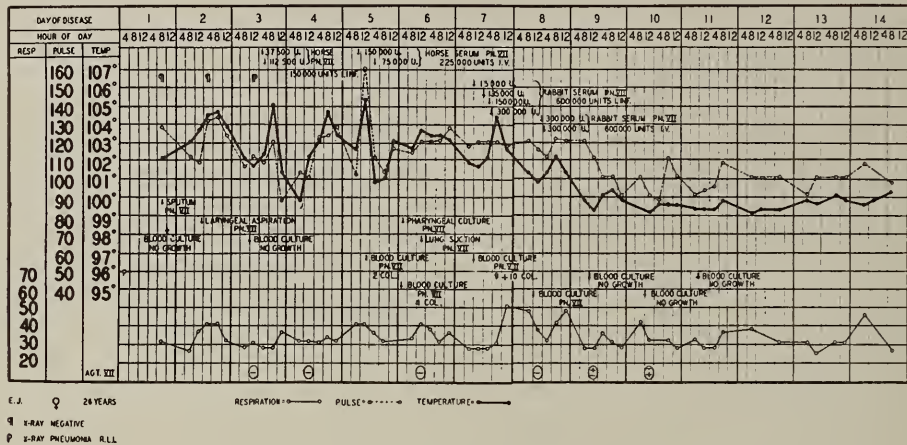


Chart 1.

immune serum remains to be seen. Sero-therapy has accomplished much.

In my discussion last evening, I referred to serum therapy as a yard stick for measuring achievement in specific therapy of the pneumonias, but it must be a yard stick in good condition and properly handled. Successful serum therapy of the pneumonias

temperature, pain in the side of the chest, cough with rusty sputum, detection of dullness, and the crepitant or consonating r le should be followed by a white blood count and radiographic examination, typing of sputum, and a blood culture. When several of these symptoms or signs are present, pneumonia should be the working diagnosis.

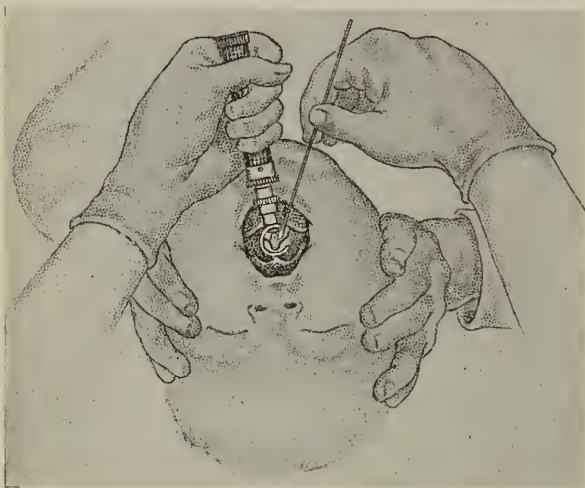


Fig. 1.

Case 1.—The case of E. J., aged twenty-six years, is illustrative. She was admitted on the first day of her illness with pneumococcus VII lobar pneumonia, with a typical history of chill and cough with rusty sputum, a temperature 102  F., pulse 120 and respirations 30. There were neither physical signs nor x-ray evidence of consolidation. On the second day, another x-ray was taken and no radiopacity was present, and from the physical signs in the chest the presence of pneumonia could not be inferred; the third day the signs of pneumonia were confirmed by radiography, and on the fourth day horse serum was given without any apparent benefit. The blood had become invaded and very large doses of rabbit serum were finally administered to effect sterilization of the blood and a cure (Chart 1).

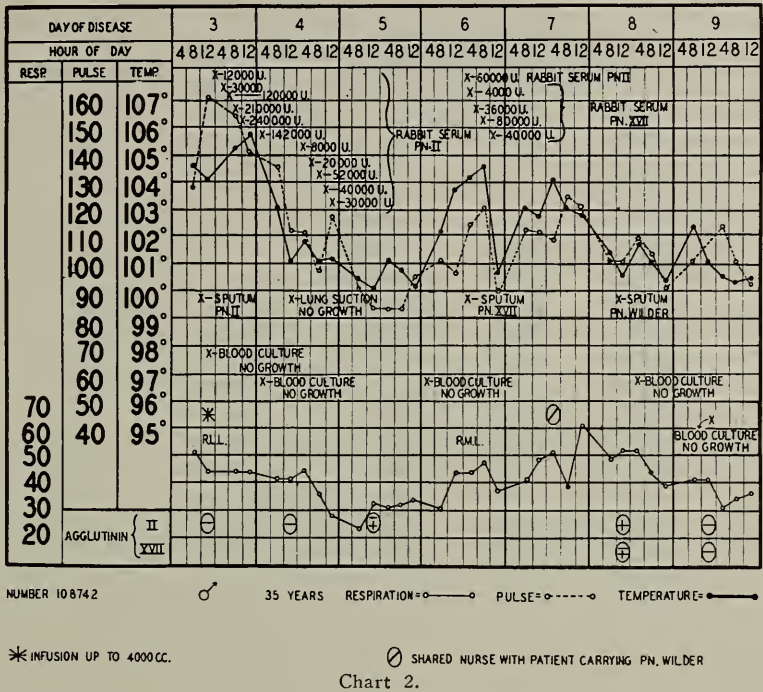
A complete diagnosis involves precise determination of the bacterial excitants of the disease. It is necessary to know exactly the organism or organisms which are responsible.

depends upon early, precise, and complete knowledge of their etiology. Early diagnosis implies alert interpretation of history, physical signs, and laboratory findings. Well-marked lobar consolidation connotes an inflammation no longer in the stage of congestion but one in which there is an exudate. No competent surgeon waits for a mass to appear in the abdomen before considering the diagnosis of appendicitis, and by the

In the presence of a pneumonia, the organisms found in the sputum are responsible for the disease in 93 per cent of cases—whatever is expectorated should be saved in a paper cup, glass or jar, and not crushed on a handkerchief, gauze or tissue. No sputum should be discarded, however unpromising. When turned on his side with the affected side uppermost, the patient

may expectorate if urged. Sometimes the small amount expectorated may miss the opening of the vessel and lodge on bed clothes or on the side of the receptacle—

may be vacuum evacuated of mucus, some of which may be regurgitated from the lower esophagus. Carefully collected material gives a high percentage of positive find-



such a specimen should be carefully garnered with a tongue blade lest it be the only sputum or the only good specimen for many hours. It may spell the patient's fate. Sometimes the patient cannot be made to expectorate the sputum which reaches the larynx, and swallows it. Such pulmonary discharges cling to the walls of the esophagus and may reach the pharynx. In adults or young patients, the secretion may be collected by vigorously swabbing the laryngo-pharynx. Secretion may be obtained by exposing the larynx, irritating it and catching the mucus thrown out in the succeeding cough on a cotton-tipped applicator. When flecks of mucus can be removed, they may be examined directly or they may be incubated in broth. They should not be incubated for longer than three hours before injection into a mouse's peritoneum lest streptococci overgrow the pneumococci. It is often advantageous to expose the larynx with a laryngoscope (Fig. 1). For this purpose, the child or resistant adult should be securely mummied in a sheet. The patient's chest is controlled by the forearms of the nurse while she steadies the patient's head with her hands.

The larynx, pharynx and upper esophagus

ing in patients suffering from pulmonary infections. When collected in this way, the probability that the organism obtained is responsible for the disease is very great. When the pulse and temperature do not fall promptly or rise again after serum has been given, it is to be explained either by an inadequate dose, incorrect or incomplete typing (several types may be involved either simultaneously or in succession), or the occurrence of a purulent complication. When the correct type is discovered, the success of therapy depends on prompt and proper administration of the serum. The fever chart of a patient in whom three organisms were present is shown in Chart 2.

Case 2.—This patient, a man of thirty-five, suffering from pneumococcus II pneumonia, was admitted on the third day of his illness. He received serum in a number of closely spaced injections into the tube of a running infusion and, on the following day, his temperature and pulse were down. On the fifth day of his illness, the temperature was 100° F., the pulse 94; the temperature continued below 101° F. the entire day. By noon of the sixth day, the temperature rose to 103.8° F. At this time an additional dose of pneumococcus II serum was administered in spite of the fact that there had been agglutinins present on the fifth day. At this time the right middle lobe was involved in addition to the previously involved lower lobe,

and there was fresh tenacious rusty sputum. Re-typing of the sputum yielded pneumococcus XVII. 180,000 units of pneumococcus XVII serum were given and both temperature and pulse fell. This was our entire supply. The temperature and pulse

meter was increased from 800 to 2,000 units. Accordingly, the dosages were increased and the interval between doses was reduced. For many years it was believed

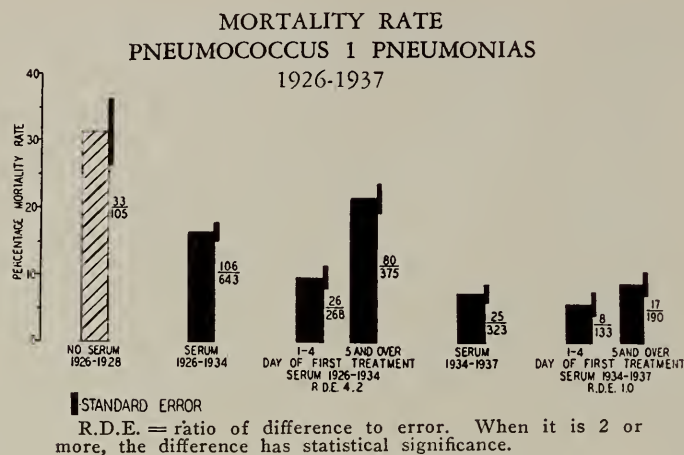


Chart 3.

fell on the following day and now there was strong agglutination for pneumococcus II and weak agglutination for pneumococcus XVII. On the seventh day this patient shared his nurse with a patient carrying pneumococcus Wilder (a sub-type of pneumococcus IX). On the eighth day his sputum contained pneumococcus Wilder. This patient recovered and left the hospital well.

It is shown by the outcome in pneumococcus I pneumonias on my service that intensive treatment is of even greater importance than early treatment, as illustrated by Chart 3.

From 1926 to 1937, 973 adult patients with pneumococcus I pneumonias were treated with serum on my service at Harlem Hospital; 134 died, a death rate of 13.8 per cent. Seventeen were treated on the first day without a death; 401 were treated before the fifth day, of whom thirty-four died, a death rate of 8.5 per cent; 565 were treated after the fourth day with ninety-seven deaths, or 17.3 per cent; in seven cases the onset day was not known. From these statistics it might be concluded that the death rate was significantly lowered by treatment before the fifth day (R.D.E. = 4.2).

It happened, that by 1933, while studying the agglutinin test for adequacy of serum dosage, I discovered that patients receiving sufficient serum within 36 hours required less serum, recovered sooner, and had a lower death rate. At this time, too, manufacturers produced much more potent horse sera. The unitage per cubic centi-

meter was increased from 800 to 2,000 units. Accordingly, the dosages were increased and the interval between doses was reduced. For many years it was believed

that pneumococcus I pneumonias were successfully treated only in the early days—ninety-six hours was given as the deadline for successful specific serotherapy. Experience in recent years with more aggressive treatment does not support this view, as is shown by a careful analysis of my figures. We may compare the cases treated in an earlier period (1926 to 1934) and a later period (1934 to 1937). In the early (1926 to 1934) period, there were 643 cases with 106 deaths, a mortality rate of 16.5 per cent. There were 268 of the one- to four-day cases with twenty-six deaths, or 9.7 per cent, and 375 fifth-day and after cases with eighty deaths, or 21.3 per cent—a statistically significant difference (R.D.E. = 4.2). In the later (1934-1937) period, there were 330 cases with twenty-eight deaths, an 8.5 per cent mortality. There were eight deaths in the one- to four-day cases (133), or 6 per cent, and seventeen among the 190 fifth-day and later cases—9 per cent mortality. In seven cases, the first day of treatment was unknown.

In this later series (1934-1937) the total death rate of 8.5 per cent is slightly less than in the one- to four-day death rate in the earlier series of 9.7 per cent, and there is no statistically significant difference between the one- to four-day and the fifth-day and later cases.

The bacteremic incidence was reduced in the later period of more intensive serum administration. Among those treated in the

first four days of illness, the bacteremic incidence from 1926 to 1934 was 60 among 268 cases, or 22.4 per cent, while it fell to sixteen among 133 cases, or 12 per cent in

cent; in the fourth, 20 per cent; in the fifth, 25 per cent; and after that, 30 per cent. The great importance of bacteremia is revealed when fatality among bacteremic cases is

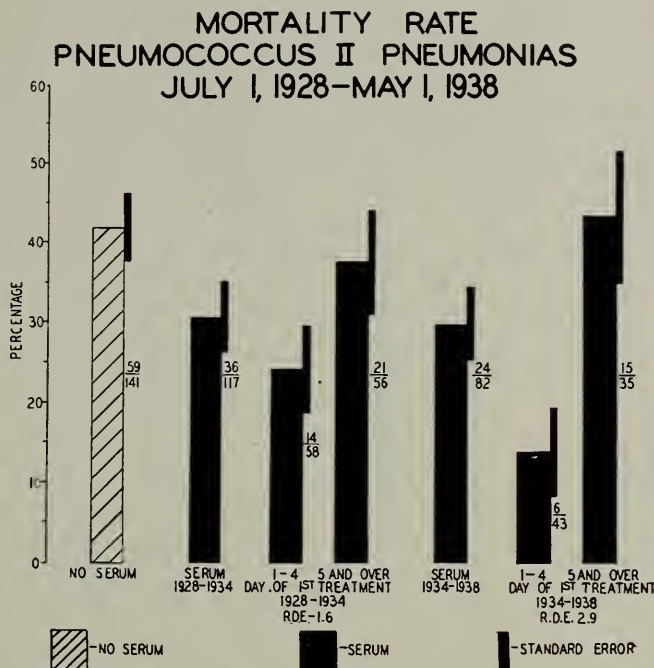


Chart 4.

1934 to 1937. This is a statistically significant reduction—R.D.E. = 2.6.

To judge the value of a specific treatment, the course of the disease uninfluenced by therapy must be known. Though some of the pneumonias pursue a course which is quite like those designated typical, there are many variants. Virulence of invading germ and resistance of host vary widely and their combinations are many. Thus, there result pneumonias differing in respect to duration and ultimate outcome.

Age and the presence of bacteremia are important in their effect on the course, duration and outcome of pneumonias. With each succeeding decade the death rate in pneumonias increases. In the second decade, the death rate is less than 10 per cent without any specific treatment. In the third, it rises to 15 per cent, in the fourth it is upwards of 25 per cent, in the fifth upwards of 35 per cent, while after age fifty it is over 50 per cent.

With each added decade, there is an increased incidence of bacteremia. In the first decade it is 2 per cent, excepting in infants, when it is 6 per cent; in the second decade it is 6 per cent; in the third it is 10 per

studied. Under age two, the death rate among bacteremic pneumonias is almost 90 per cent. In the first and second decades it is approximately 35 per cent, and after that it is above 70 per cent. As a rule, bacteremic incidence and death rate run parallel. In the fatal pneumococcic pneumonias, the incidence of bacteremia was upward of 60 per cent; in those without bacteremias, it was approximately 10 per cent.

It has frequently been stated that all pneumonias are bacteremic at some time. This is not our experience. There are many cases of pneumonia in which, apparently, the blood is never invaded. The lung blood barrier often fails only late in the disease. When we studied the day of disease in which the blood was found to be invaded after previous negative cultures, we discovered that most of the bacteremias were first detected on the fourth day or later.

The duration of pneumonias is not a fixed period. It has often been recorded that pneumococcic pneumonias last seven to eight days. However, when we studied a series of almost 800 cases of the first eight pneumococcic types in which the duration was uninfluenced by specific treatment, it was

found that the percentage terminating on any day formed the ordinary Gaussian curve for frequency distribution. An occasional case terminated on the first day, while some

therapy, depending upon the day of treatment (Chart 4). When we analyzed our data further, it was found that there was a significant shortening of the illness as the

**PNEUMOCOCCUS II PNEUMONIAS
TREATED OR ADMITTED WITHIN 0-4 DAYS
JULY 1, 1928-APRIL 1, 1938**

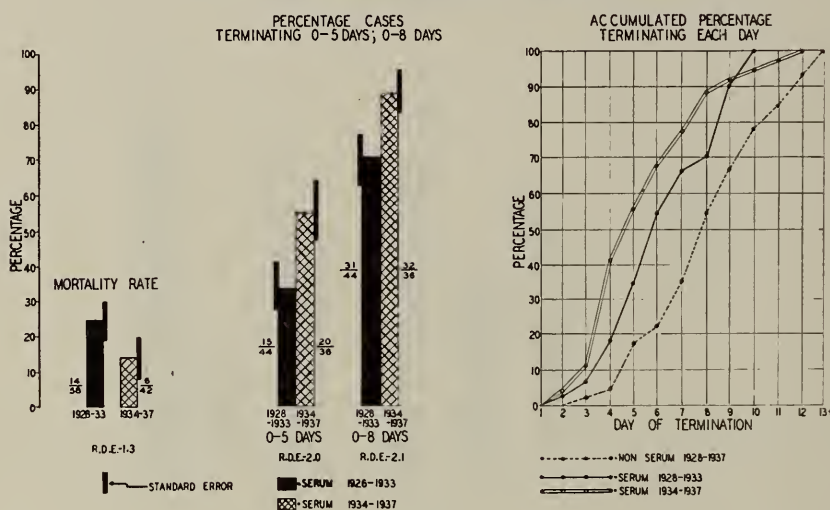


Chart 5.

lasted nineteen days and longer; the mode was eight days.

Against the background of these observations, we have found that serum reduces the mortality rate and terminates the disease earlier, and that this may be in direct relationship to the time when serum was administered and to the amount given. This is exemplified by a study of type II cases treated at different periods both early and late in the disease. When the results in all the pneumococcus II pneumonias treated during ten years were analyzed, a statistically significant difference was found between early and late treatment, as shown in the graph (Chart 4) quite the reverse of our findings in pneumococcus I pneumonias. If the patients with pneumococcus II pneumonia are divided into two groups, those from 1926 to 1934 and from 1934 to 1938, and into those treated up to the fifth day and those treated on the fifth day or later, then the early treated cases had a mortality of 25 per cent and the later treated cases had a mortality of 38 per cent. This was especially evident in the cases treated more intensively, as was done in the years from 1934 to 1938. During this latter period, there was a statistically significant difference in the results of

result of more intensive treatment, both in the early treated and in all cases. This was well brought out when the accumulated percentage of cases terminating by recovery each day was charted. When we compared the time at which 50 per cent of the cases terminated, it is shown that the early treated cases terminated two days sooner than nonserum treated cases and an additional day sooner as the result of the more intensive treatment practiced in the years between 1934 and 1937 (Chart 5).

Bacteremia hardly ever occurs after serum therapy, and usually disappears after administration of an adequate amount of serum. Two conditions may be responsible for this failure of serum, either bacterial endocarditis or mycotic aneurysm, and occurrence of serum-resistant strains.

I have already emphasized the importance of treating the correct type. Not only must serum be administered for the type present, but it may have to be administered for all the types present. Patients may have several pneumonias, either simultaneously or in close succession. Pneumococcic pneumonia may be associated with other diseases, and some of the difficulties in diagnosis are shown in the following case (Chart 6).

A patient with an indefinite history was admitted, on the third day of his illness, to the tuberculosis service. On the sixth day, when tubercle bacilli were found, he was delirious and had rusty sputum. At this time, the sputum contained pneumococcus

the flask of the infusion because the dilution may cause changes which produce thermal reactions and if the patient is intolerant of the serum, the entire projected dose of

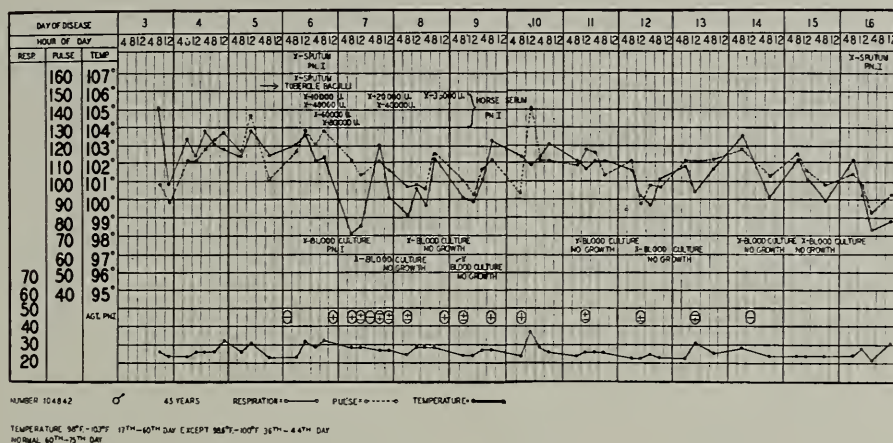


Chart 6.

I and his blood culture pneumococcus I. He received antipneumococcic serum. His temperature fell to normal. Subsequently, his blood culture continued sterile. For 9 days he continued to run a temperature of 103° F., with a pulse of 110 or thereabouts. His agglutinins, however, were positive for pneumococcus I. An x-ray showed what was, apparently, an interlobar collection of fluid. His temperature then fell to normal. The involvement of the left lower lobe cleared, leaving a mottled shadow of tuberculosis.

We have observed pneumonias due to pneumococci, in diphtheria; in measles and in whooping cough pneumococcic pneumonias are not infrequent. In these cases, the response to homologous serum has been in direct time relationship to the administration of a sufficient amount.

The careful administration of serum with adequate safeguards is as important as administration of the correct kind. In giving serum, it is always necessary to determine sensitivity. Skin and ophthalmic tests should be given. It may require as long as twenty minutes for reactions to appear. The blood pressure test is an additional safeguard and is performed by slowly injecting into a vein, 0.1 c.c. of serum in 5 c.c. of saline. If the blood pressure has not fallen, or has fallen less than 20 mm. Hg., after five minutes, the test is considered negative. Frequent piercing of the veins may be obviated by giving the injection into the latex gum tube of an intravenous infusion of saline and glucose five per cent, flowing at a rate of 2 c.c. per minute (Fig. 2). This is preferable to mixing the entire dose in

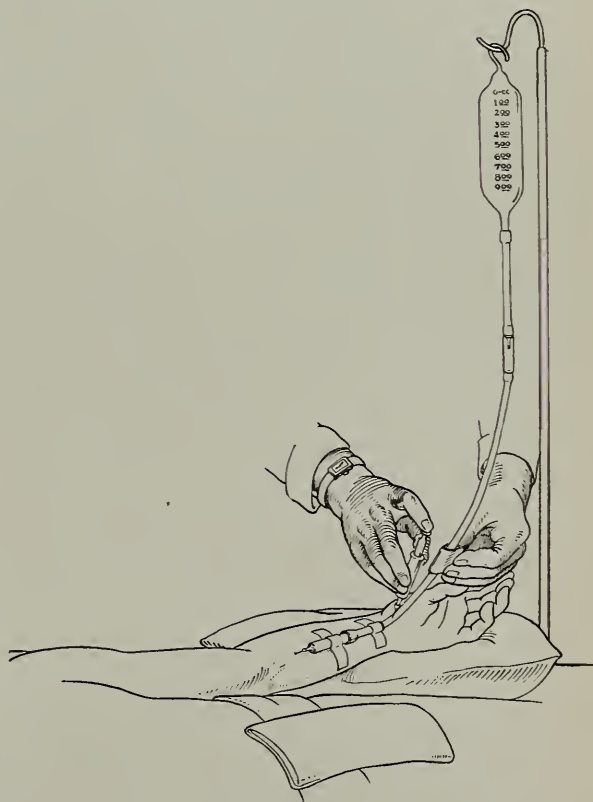


Fig. 2.

diluted serum is lost instead of only a small amount in the syringe.

Start with 2 c.c. and then give 5 c.c. and increase by 5 c.c. increments until 20 c.c. are given, and repeat this dose until the projected unitage has been given. The interval should be at least an hour. If there is a thermal reaction, the next dose should be delayed until it has passed off or be

preceded by acetyl-salicylic acid, 0.5 to 1 gm. A small needle is introduced into a vein of the forearm sufficiently far from antecubital space to permit bending of the elbow and movement of the arm. Strap needle and glass adapter to forearm and inject the serum into the tube about 6 to 10 inches from the needle. It should be injected very slowly, taking five minutes for the first cubic centimeter and one minute for each succeeding cubic centimeter.

Small children may stand serum poorly when it is given intravenously; on this account, they may receive the serum intramuscularly. Infants under two are well treated in this way. After testing for sensitivity, 5 or 10 c.c. doses are injected into upper outer quadrant of each buttock and massaged for five minutes. The dose required is the same as for adults, 50 to 150,000 units. The results are less spectacular; it requires eighteen to twenty-four hours for the temperature to fall. Older children should receive their serum intravenously, depending on their weight. They receive a fraction of the projected dose, assuming that 120 pounds is the weight of an adult. Pneumococcus XIV horse serum should not be given intravenously unless the blood group is determined. Pneumococcus XIV injected horses may have agglutinins for group A cells and administration of pneumococcus XIV horse serum may be dangerous in children of this blood group. It has been given intramuscularly without accident many times. These agglutinins for group A cells are not present in pneumococcus XIV rabbit serum.

When the blood pressure is low because of loss of salt due to fever, sweating, vomiting or diarrhea, it should be restored by intravenous injection of saline solution with 5 per cent glucose before administering serum. In some instances, as much as 3,000 to 4,000 c.c. may be required to restore circulation fluid lost or in the tissues.

The results in the treatment with serum in children have been gratifying. In the pneumococcus XIV cases treated between 1934 and 1938, there were fifty-four cases, five of whom were bacteremic, and there were no deaths. During that period, there were 82 no-serum cases, ten died, a mortality of 12.2 per cent—eight per cent of these were bacteremic and five died, a mortality of 62 per cent. Among the eighty-two no-

serum cases, four developed empyema; only one of the fifty-four treated cases was so afflicted.

There were 107 patients suffering from pneumococcus VI pneumonia, with twelve deaths, a death rate of 11.2 per cent. Twenty-three were adequately treated with serum, one of them died, a death rate of 4.3 per cent. One was bacteremic and recovered; neither of two bacteremic patients from whom serum was withheld recovered.

There were seventy-one pneumococcus XIX cases with eight deaths, two of whom were bacteremic and both succumbed. There were nine adequately treated cases with one death; two bacteremic patients recovered. There were 116 pneumococcus I pneumonias in children treated with serum; eight died, seven were bacteremic and two of these died. Only forty-one of these patients were treated before the fifth day and only one of them died. There were seven bacteremic patients and only one death. There were ten cases with bacteremia treated after the fifth day and one died.

At the present time, refined and concentrated rabbit serum is available for all the pneumococcic types. It would be monotonous to show you the results in each of these types, from adequate amounts quickly given. If an adequate amount is given, a prompt fall of temperature may be expected from serum therapy, even in pneumococcus III pneumonias, as in the others. Rabbit serum has this advantage over horse serum, that serum of greater potency is produced and that it may be more penetrating, and that less serum sickness occurs..

When given in adequate amounts before complications occur, serum may be expected to cause a prompt binding of any circulating soluble carbohydrate with a resulting prompt fall to normal of pulse rate and temperature. The adequacy of serum dosage may be tested in a number of ways, either by the study of the agglutinins with a slide or test tube technic, or by the injection of soluble specific carbohydrate intradermally. A positive reaction, especially if persistent after a negative one, is indicated by a wheal and a flare when .2 c.c. of 1:10,000 dilution of the homologous carbohydrate is intradermally injected. It usually indicates healing and a good prognosis. It is important that none of the common carbohydrate (C

substance) or other substance contaminate the solution used, and that the saline solution employed for the test and some other carbohydrate be used as a control.

A rise of temperature after it has fallen late in the disease, may indicate either a reinvasion with another type, a flare-up of the original process, or a complication. After serum, it may indicate a serum sickness.

CONCLUSION

I have reviewed the treatment of the pneumococcic pneumonias with specific se-

rum, the results, and the method of administration. The treatment of pneumococcic pneumonias with specific serum is supported by sound theory; it has been found of value in the hands of many practitioners. It is an instrument of great power when properly used; it accelerates the natural processes of healing. The exact position of chemotherapy cannot be stated. It may become an adjuvant to or a substitute for serum. Our knowledge at the present time is inadequate, and these enticing problems require, for solution, additional experience.

TEN COMMANDMENTS FOR MEDICAL WITNESSES

These ten commandments for the expert witness in a medicolegal case, published in *Colorado Medicine*, were formulated by Dr. A. Q. Rosenberger and read by him before a meeting of the Milwaukee Bar Association. They are as follows:

1. Examine your case thoroughly and repeatedly so that you know what you are talking about. Know your facts well. They must be incontrovertible. The opinion you form from these facts is your own, but must be arrived at honestly.
2. Testify slowly, clearly, simply, and in language that the layman can understand. Forget your Latin medical terms. You are obliged to talk down to the level of intelligence in the jury box in order to get your facts across.
3. Stick to the unvarnished truth. If you do not, your statements will strike back at you like a boomerang.
4. Do not become partisan or assume a proprietary interest in the legal proceedings, for if you do, it will diminish your value in the eyes of the court and the jury.
5. Maintain your dignity and do not advise or consult with an attorney in the courtroom, but sit far away from him. The attorney should prepare his case before he goes into court.
6. You are not required to answer by "yes" or "no" an involved question if such answer places you in the position of the man who was asked, "Have you stopped beating your wife?" Your "yes" would be a lie and your "no" a prevarication. If a long, involved, hypothetical question is to be propounded to you, request that it be given to you in writing before you are put on the stand so that you may thoroughly study it and not embarrass your attorney by your answer.
8. Refuse to answer any question which puts you into some other field of medicine than your own. You may always say, "I cannot qualify."
9. Do not allow an attorney of the blustering, bulldozing type to anger you or "get your goat." The purpose of this line of questioning is to throw you off guard.
10. Remember that at times the most valuable words in the English language are, "I do not know."

THE JOURNAL

OF THE

Michigan State Medical Society

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AUGUST, 1939

*"Every man owes some of his time to the up-
 building of the profession to which he belongs."*

—THEODORE ROOSEVELT.

EDITORIAL

A REAL MONUMENT

THE death of Dr. William Mayo removes from American medicine one of its most outstanding personalities. The brothers William and Charles passed away within a few weeks. The name Mayo has for many years been known throughout the medical world. Seldom, we might say, never, have the genius for organization and that of the art and science of medicine met in two men—brothers. The Mayo Clinic has not only attracted to the staff younger men of great ability, it has long been the mecca for physicians from nearly all nations. These two brothers were familiar figures at medical

meetings which they frequently addressed. They gave of their best not only in a scientific sense, but their hospitality to visitors to the clinic did not discriminate between the great and the obscure; all were welcome. The writer on a visit to Rochester was invited by a member of the staff to attend one of the regular evening meetings of the clinic staff. One of the younger members presented a short paper on a topic that had been assigned to him. Dr. William Mayo, at the conclusion of the paper, put some questions to the young essayist, not in a spirit of finding out what the young doctor did not know, but as a genuine seeker for information. Who would not do his best for such a chief?

As to the future. The brothers have laid a true and, let us hope, an enduring foundation. Their work will surely live. Their names will go down in the annals of medicine along with other immortals in medical history. Their monument is the famous Mayo Foundation in connection with the University of Minnesota, an institution for research and scholarship. May it be said in the language of Horace, that their life work will be "more enduring than bronze and loftier than the regal structure of the pyramids which neither the corroding shower nor the innumerable years will be able to destroy."

THE WAGNER BILL

Both lay and medical press have commented at length on the Wagner Bill, Senate Bill Number 1620, since its introduction by Senator Wagner on February 27 of this year, so it would seem that there is not much new that can be written. Most of the comment has been on its imperfections and the undesirable conditions to which its enactment might lead. Many fear the huge expense in connection with such a national health program and the consequent confiscatory taxation that must necessarily follow. Senator Wagner has proposed an amendment to authorize the social security board to make provision for medical, surgical, institutional, rehabilitation or other service to an ill-defined class of persons who are unable to work because of disability which might be eliminated by such services. The service, we are informed, will be rendered regardless of the person's ability to pay for it.

Few or none would question the object of assisting afflicted humanity to health and comfort. There are, however, many things to be taken into consideration. The report of the Surgeon General has already informed the nation of the very satisfactory condition of public health in the United States as compared with that of countries in which the practice of medicine is under state control. Is it not therefore wiser to continue with tried than to experiment with untried methods at this time?

In an address before the Massachusetts Medical Society, Dr. Elliot P. Joslin, whom no one can charge with being reactionary, gave a number of reasons for opposing the Wagner Bill. Among them:

1. We as American people do not wish to be plunged further into debt.
2. The medical profession does not wish to become subservient to the government in the carrying out of its health work, both preventive and therapeutic.
3. No radical measures should be tried out in this country where the health record is so excellent without first considering methods previously in operation.
4. To extend such services to forty million people in one stroke would be dangerous, since there are not sufficient public health doctors prepared to carry them out.
5. Politics already plays a part in health matters. Forty thousand doctors politically employed would be disastrous. The Public Health Service should be expanded gradually.
6. The W.P.A. and the Social Security Act have not been satisfactory and should first be improved before embarking on new ventures.
7. The allocation of medical funds as provided in the bill is dangerous.
8. The hospital building program proposed is disturbing.

AN OPEN LETTER

DR. STUART PRITCHARD, Director
W. K. KELLOGG FOUNDATION:

In the July issue of the JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY, there appeared an editorial entitled "A Practice Which Should Not Be Encouraged." The article was the expression of the personal views of Editor Dempster, based upon incomplete knowledge of the facts. The Publication Committee and the Executive Committee of the Council of the Michigan State Medical Society are well aware that the Kellogg Foundation has initiated its projects on request, and only with the approval and coöperation of the local county medical society.

The Executive Committee of the Council

has had the opportunity and pleasure of meeting representatives of the seven county medical societies in whose areas the Kellogg Foundation coöperates. These members of our Society have reaffirmed the principle of the Foundation's activities and purposes.

The Executive Committee which is responsible for the publication of the JOURNAL regrets that this article was not referred to the Publication Committee before release. No officer of the Society or member of the Executive Committee had any intimation that this editorial was to be published. It is not an expression of the opinion of the Executive Committee of the Council.

The Michigan State Medical Society is extremely appreciative of the splendid educational work that the Kellogg Foundation is doing and its long-time and full coöperation with this Society. It is especially grateful for the Foundation's generous support of postgraduate medical education.

We regret that this editorial, published without official approval, appeared.

Executive Committee of the Council.

By P. R. URMSTON, M.D., *Chairman.*

ECONOMY FAVORED, BUT WHAT OF THE DOCTOR?

Voluntary Health Insurance is designed to take care of employed persons. Even when the new health insurance plans are completed and put into operation, there will be large numbers of the unemployed and indigent unemployable, including children, who must be cared for in the event of illness. These must receive medical care paid for by the state or municipality or they must be left to the charity of the medical profession. During the past two years, the legislature of Michigan has appropriated \$1,100,000 each year to care for indigents. This has proved insufficient by at least \$475,000. This sum is the unpaid debt for medical and hospital care, ordered by the state for the year ending June 1, 1939. For the next two years, the appropriation is not \$1,100,000 a year, but \$500,000, a sum less than half that for a single year for 1938 and 1939. It goes without saying that the meagre appropriations for the next two years will result in a crippling of very important service if doctors should fail to come to the rescue for the result will be that the medical profession

will be called upon to render service without remuneration. This would be asked of no other kind of service. Even with the sums set aside for medical care in the immediate past, the medical profession have been woefully underpaid. The outlook, to say the least, is not encouraging to the medical profession. However, this is a kind of state medicine.

We realize the fact that the cost of government has become so enormous that legislators are hard pressed to know how to raise funds to carry on, that education even, among other things, has suffered and is about to suffer more through insufficient funds to meet the cost. In spite of this, taxation has become so burdensome that further imposition of taxes would embarrass many who, even now, are struggling to make ends meet. The situation, to say the least, presents puzzling problems to the law makers. Any governing body civic, state or national that is truly honestly endeavoring to retrench should have the moral support of every one. As doctors we will carry on and render aid where necessity calls. *Noblesse oblige*, nobility compels; the ancient and honorable tradition of medicine will not see human beings suffer though they may not have the means of meeting the physician's fee.

However, undue advantage should not be taken of the physician's willingness to serve.

CREDIT TO WHOM CREDIT IS DUE

A number of very important measures concerning some phase of public or personal health have been presented to the legislature of Michigan during the past session. Practically all of them have had more intelligent consideration than has been the customary approach to such matters. By the prompt way in which these bills have been enacted into law, the legislators have earned the gratitude of the electorate. The expression, gratitude of the electorate, is used advisedly. Doctors and their families know where to turn for medical care or assistance, or for anything that will make for better health; therefore, a wise disposition by legislators of matters pertaining to public and personal health benefits the whole population and in turn sane legislation by thoughtful legislators should be favorably received by the entire population of the state.

Among the most important measures is the act authorizing group medical care in which both political parties supported the measure with virtual unanimity. Another was the measure establishing a welfare commission with a medical doctor to administer the health or medical features of it, and we would also include the bill making illegal certain dental advertising. All these are in the public interest. There are other health measures which have been noted in this Journal under the secretary's department as well as the monthly budget of news from the office of the State Commissioner of Health.

Mr. Jesse Jones, who has been appointed head of the Federal Loan Agency and who has been at the head of the Reconstruction Finance Corporation for a number of years, said, "The greatest disservice you can do is to lend a man money he can't pay back." We all agree since this is a lesson we have learned by experience, and experience is the best teacher.

WHO BORROWED MY INSTRUMENTS?

Who borrowed my instruments, and my story book?
Who forgot to return the things he took?
Who is it, now, that takes the very joy from life
When one is busy with his daily toil and strife?

Here I am, trying my very best to get along.
With half a decent smile, at times a wee bit song.
I am very busy—I've a lot o' work to do,
Of course I'm in a hurry, that I may get it through.

Who's got that story book, who's got that instrument?

I laid them there, right there where in an instant
I could pick them quickly up and work my daily chore,
But some old chump has made me mad enough to roar.

Oh for words bad enough to call that sinner bold.
I'd like to flay him, skin him, wring him till he's cold.

That fellow that borrows books, and tools and other things
And doesn't bring them back. I hope his conscience stings!

Well,—This is a beautiful morning—the sun is out—
It's just the finest time of year to be about.
The grass is green, the flowers full of bloom and glow,
The trees are softly humming as cooling breezes blow.

So we're up and doing, with a very pleasant smile,
Ahustling and abustling about our daily toil.
Oh say—I forgot to tell you—been busy in my den—
I found my instruments—just—where—I—left—them.
—*W'celum.*

President's Page

My Dear Doctor:

This letter is calling to your attention the importance of the September meeting of your society in Grand Rapids.

From a purely academic standpoint you owe it to yourself to attend. The refresher course will give you a great deal of personal satisfaction.

From a social standpoint you have an obligation to the public to make a contribution towards the distribution of medical care.

The House of Delegates on Monday, September 18, will begin a momentous session. An open meeting will be held the evening before to which all the profession are invited. Anyone and everyone is entitled to be heard. Your experience and judgment will be valuable. I sincerely hope to see you.

Fraternally,

A handwritten signature in cursive script, reading "Henry A. Luce".

President, Michigan State Medical Society.

Michigan State Medical Society

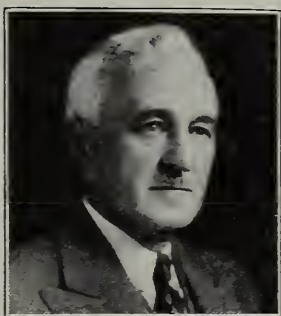
Past Presidents 1866-1937



- | | |
|--|--|
| 1866—*C. M. Stockwell, Port Huron | 1901—*Leartus Connor, Detroit |
| 1867—*J. H. Jerome, Saginaw | 1902—*A. E. Bulson, Jackson |
| 1868—*Wm. H. DeCamp, Grand Rapids | 1903—*Wm. F. Breakey, Ann Arbor |
| 1869—*Richard Inglis, Detroit | 1904—*B. D. Harison, Sault Ste. Marie |
| 1870—*I. H. Bartholomew, Lansing | 1905—*David Inglis, Detroit |
| 1871—*H. O. Hitchcock, Kalamazoo | 1906—*Charles B. Stockwell, Port Huron |
| 1872—*Alonzo B. Palmer, Ann Arbor | 1907—*Herman Ostrander, Kalamazoo |
| 1873—*E. W. Jenk, Detroit | 1908—*A. F. Lawbaugh, Calumet |
| 1874—*R. C. Kedzie, Lansing | 1909—*J. H. Carstens, Detroit |
| 1875—*Wm. Brodie, Detroit | 1910—*C. B. Burr, Flint |
| 1876—*Abram Sager, Ann Arbor | 1911—*D. Emmett Welsh, Grand Rapids |
| 1877—*Foster Pratt, Kalamazoo | 1912—*Wm. H. Sawyer, Hillsdale |
| 1878—*Ed. Cox, Port Huron | 1913—*Guy L. Kiefer, Detroit |
| 1879—*George K. Johnson, Grand Rapids | 1914— Reuben Peterson, Ann Arbor |
| 1880—*J. R. Thomas, Bay City | 1915—*A. W. Hornbogen, Marquette |
| 1881—*J. H. Jerome, Saginaw | 1916— Andrew P. Biddle, Detroit |
| 1882—*Geo. W. Topping, DeWitt | 1917— Andrew P. Biddle, Detroit |
| 1883—*A. F. Whelan, Hillsdale | 1918— Arthur M. Hume, Owosso |
| 1884—*Donald Maclean, Detroit | 1919— Charles H. Baker, Bay City |
| 1885—*E. P. Christian, Wyandotte | 1920—*Angus McLean, Detroit |
| 1886—*Charles Shepard, Grand Rapids | 1921—*Wm. J. Kay, Lapeer |
| 1887—*T. A. McGraw, Detroit | 1922—*W. T. Dodge, Big Rapids |
| 1888—*S. S. French, Battle Creek | 1923— Guy L. Connor, Detroit |
| 1889—*G. E. Frothingham, Detroit | 1924—*C. C. Clancy, Port Huron |
| 1890—*L. W. Bliss, Saginaw | 1925—*Cyrenus G. Darling, Ann Arbor |
| 1891—*George E. Ranney, Lansing | 1926— J. B. Jackson, Kalamazoo |
| 1892—*Charles J. Lundy (died before taking office) | 1927— Herbert E. Randall, Flint |
| *Geo. V. Chamberlain, Flint, Acting President | 1928— Louis J. Hirschman, Detroit |
| 1893—*Eugene Boise, Grand Rapids | 1929— J. D. Brook, Grandville |
| 1894—*Henry O. Walker, Detroit | 1930—*Ray C. Stone, Battle Creek |
| 1895—*Victor C. Vaughan, Ann Arbor | 1931—*Carl F. Moll, Flint |
| 1896—*Hugh McColl, Lapeer | 1932— J. Milton Robb, Detroit |
| 1897—*Joseph B. Griswold, Grand Rapids | 1933— George LeFevre, Muskegon |
| 1898—*Ernest L. Shurly, Detroit | 1934— R. R. Smith, Grand Rapids |
| 1899—*A. W. Alvord, Battle Creek | 1935— Grover C. Penberthy, Detroit |
| 1900—*P. D. Patterson, Charlotte | 1936— Henry E. Perry, Newberry |
| | 1937— Henry Cook, Flint |

*Deceased.

The 1939 Meeting



H. A. LUCE, M.D.
Detroit
President



P. R. URMSTON, M.D.
Bay City
Council Chairman



P. A. RILEY, M.D.
Jackson
Speaker, House of Delegates

OFFICIAL CALL

THE Michigan State Medical Society will convene in Annual Session in Grand Rapids on September 18, 19, 20, 21, 22, 1939. The provisions of the Constitution and By-laws and the Official program will govern the deliberations.

Henry A. Luce, M.D.,
President

P. R. Urmston, M.D.,
Chairman of The
Council

Philip A. Riley, M.D.,
Speaker

Attest: L. Fernald Foster,
M.D., Secretary



L. FERNALD FOSTER, M.D.
Bay City
Secretary



B. R. CORBUS, M.D.
Grand Rapids
President-Elect



WM. A. HYLAND, M.D.
Grand Rapids
Treasurer

OUTLINE OF GENERAL ASSEMBLY PROGRAM

All General Assemblies will be held in the Black and Silver Ballroom of the Grand Rapids Civic Auditorium.

	Tuesday, Sept. 19, 1939	Wednesday, Sept. 20, 1939	Thursday, Sept. 21, 1939	Friday, Sept. 22, 1939
A. M. 9:30 to 10:00	RICHARD B. CATTELL, M.D., Boston	SECTION	ANTHONY SINDONI, JR., M.D., Philadelphia	CARL HUBER, M.D., Indianapolis
10:00 to 10:30	W. O. THOMPSON, M.D., Chicago	SECTION	LEROY A. CALKINS, M.D., Kansas City	THOMAS E. JONES, M.D., Cleveland
10:30 to 11:00	Intermission to VIEW EXHIBITS	SECTION	Intermission to VIEW EXHIBITS	Intermission to VIEW EXHIBITS
11:00 to 11:30	JAMES GOODALL, M.D., Montreal	SECTION	LOUIS SCHWARTZ, M.D., Washington, D. C.	HENRY C. SCHUMACHER, M.D., Cleveland
11:30 to 12:00	ARCH. O. HECK, Ph.D., Columbus, Ohio	SECTION	HENRY M. GOODYEAR, M.D., Cincinnati	RICHARD M. SMITH, M.D., Boston
P. M. 12:00 to 12:30	SANFORD R. GIFFORD, M.D., Chicago	SECTION	BUDD C. CORBUS, M.D., Chicago	ROBERT C. HOOD, M.D., Washington
12:30 to 1:30	VIEW EXHIBITS	Luncheon VIEW EXHIBITS	Luncheon VIEW EXHIBITS	Luncheon VIEW EXHIBITS
1:30 to 2:00	JONATHAN C. MEAKINS, M.D., Montreal	HENRY W. WOLTMAN, M.D., Rochester, Minn.	HAROLD N. COLE, M.D., Cleveland	GEORGE CRILE, JR., M.D., Cleveland
2:00 to 2:30	BERT I. BEVERLY, M.D., Chicago	C. GUY LANE, M.D., Boston	JAMES ALEXANDER MILLER, M.D., New York	PHILIP LEWIN, M.D., Chicago
2:30 to 3:00	Intermission to VIEW EXHIBITS	Intermission to VIEW EXHIBITS	Intermission to VIEW EXHIBITS	Intermission to VIEW EXHIBITS
3:00 to 3:30	EDWIN E. OSCOON, M.D., Portland, Ore.	JAS. W. WHITE, M.D., New York	McIVER WOODY, M.D., New York	MAXWELL FINLAND, M.D., Boston
3:30 to 4:00	HAROLD I. LILLIE, M.D., Rochester, Minn.	HUGH McCULLOCH, M.D., St. Louis	LLOYD D. FELTON, M.D., Washington	WARREN H. COLE, M.D., Chicago
4:00 to 4:30	ISIDOR S. RAVDIN, M.D., Philadelphia	ARTHUR H. CURTIS, M.D., Chicago	BENJ. RICE SHORE, M.D., New York	WM. D. STROUD, M.D., Philadelphia
4:30 to 6:00	VIEW EXHIBITS	4:30 to 4:50 WALTMAN WALTERS, M.D., Rochester VIEW EXHIBITS	VIEW EXHIBITS	END OF CONVENTION
6:00 to 8:00	Secretaries' Conference	Fraternity and Alumni Dinners	Fraternity and Alumni Dinners	
8:00 to 10:00	Medical Service Night Ed. J. McCORMICK, M.D., Toledo	President's Night Biddle Lecturer: ROCK SLEYSTER, M.D., Wauwatosa, Wis.	Postgraduate Convocation Speaker: JAMES ALEXANDER MILLER, M.D., New York	THE WOMAN'S AUXILIARY INVITES YOUR LADY

CONVENTION INFORMATION

DIRECTORY

Headquarters.....Civic Auditorium
 Registration....Exhibit Floor, Civic Auditorium
 Hotel Headquarters.....Pantlind Hotel
 Technical Exhibits.....Civic Auditorium
 General Assemblies..Black and Silver Ballroom,
 Civic Auditorium
 Publicity, Press Room.....Room "D"
 Civic Auditorium
 Telephone: 9-6266
 Official M.S.M.S. Booth.....Exhibit Floor,
 Civic Auditorium
 Woman's Auxiliary, Headquarters and Reg-
 istration.....Pantlind Hotel

SYMPOSIUM ON "THE BUSINESS SIDE OF MEDICINE"

Monday, September 18, 1939
 1:30 to 4:30 P. M.

Supper Club Room, Pantlind Hotel,
 Grand Rapids

Arranged for secretaries and office assist-
 ants of M.S.M.S. Members. Physicians and
 their wives are cordially invited.



JAMES B. STANLEY



ALLISON SKAGGS

Program

Presiding: PAUL W. WILLITS, M.D.,
 Grand Rapids

1. "Practical Legal Highlights of a Doctor's
 Office" (30 min.)
 JAMES B. STANLEY, LL.B., Kalamazoo,
 Michigan

Question Period

2. "Office Procedures" (30 min.)
 ALLISON SKAGGS, Battle Creek, Michigan

Question period

3. Round Table Discussion (55 min.)

Favors for the Ladies

COUNTY SECRETARIES' CONFERENCE

Swiss Room Pantlind Hotel

Tuesday, September 19, 1939
 5:30 to 8:00 P. M.

OTTO O. BECK, M.D., Birmingham, Presiding



THOS. A. HENDRICKS

"How Not to
 Make Laws and
 Influence Legis-
 lators"

THOMAS A.
 HENDRICKS, In-
 dianapolis, Indi-
 ana, Executive
 Secretary, Indi-
 ana State Medi-
 cal Association,
 and Indiana
 State Senator.

"Leadership by the County Medical Society"
 L. FERNALD FOSTER, M.D., Secretary, M.S.
 M.S., Bay City.

"Michigan's Group Medical Care Plan"
 HENRY A. LUCE, M.D., President, M.S.M.S.,
 Detroit.

REFRESHMENTS DINNER
 PRESENTATIONS

All Members of the State Society will be
 Welcome at This Conference

Register—Exhibit Floor, Civic Auditorium
 Grand Rapids—as soon as you arrive.

Admission will be by badge only to all Scientific
 Assemblies and Section Meetings. Bring your
 M.S.M.S. or A.M.A. Membership Card to expedite
 registration.

No registration fee to members of the Michigan
 State Medical Society.

Hours of Registration: Daily 8:30 A. M. to 6:00
 P. M. on Monday, Tuesday, Wednesday, Thursday,
 and to 4:00 P. M. on Friday.

* * *

Guests—Members of the American Medical As-
 sociation from any state, or from a province of
 Canada, and physicians of the Army, Navy and U.
 S. Public Health Service are invited to attend, as
 guests. Please present credentials at Registration
 Desk.

Bona-fide doctors of medicine serving as internes,
 residents, or who are associate or probationary
 members of county medical societies, if vouched
 for by an M.S.M.S. Councilor or the president or
 secretary of the county medical society, will be reg-
 istered as guests. (Please present credentials at
 Registration Desk.)

* * *

Register at each booth in the Grand Rapids
 Exhibit. Your friend, the exhibitor, will appre-
 ciate your visit and interest.

PROGRAM of GENERAL ASSEMBLIES

TUESDAY MORNING

September 19, 1939

First General Assembly

Black and Silver Ballroom, Civic Auditorium

W. H. HURON, M.D., Presiding
 L. FERNALD FOSTER, M.D. and PAUL W. KNISKERN,
 M.D., Secretaries

A. M.

9:30 "Surgical Treatment of Ulcerative Colitis"

RICHARD B. CATTELL, M.D., Boston, Mass.



RICHARD B. CATTELL

Surgeon, Lahey Clinic, New England Deaconess Hospital and New England Baptist Hospital.

The management of ulcerative colitis is considered to be primarily a medical problem. The course of the disease, however, in its severe manifestations has proved that medical treatment is not effective in all cases. From the experience in this clinic, 41 per cent of the patients have unsatisfactory relief of symptoms or recurrence of the disease. These unsatisfactory cases are due to complications unrelievable by other than surgical means.

Operation in our experience is elected early in the course of unsatisfactory medical management in order to avoid the high mortality following operation in these poor risk patients. Ileostomy, partial colectomy and complete colectomy constitute the valuable surgical procedures in these cases. The management of ileostomy, technic of operation and results of surgical treatment will be presented.

10:00 "Treatment of Male Hypogonitalism"

W. O. THOMPSON, M.D., Chicago, Ill.



W. O. THOMPSON

Associate Clinical Professor of Medicine, Rush Medical College of the University of Chicago. Associate Attending Physician, Presbyterian Hospital, Chicago. Formerly Research Fellow in Medicine, Harvard Medical School and in charge of Metabolism Laboratory, Massachusetts General Hospital.

The development of secondary sexual characteristics depends upon the production of male sex hormone by the interstitial cells of the testis. Hypogonitalism in most instances is secondary to hypopituitarism but in some instances (eunuchoidism) is caused by faulty development or atrophy of the testis. The treatment must therefore either stimulate the testis to greater activity (stimulation therapy) or replace the hormonal deficiency (replacement therapy). For stimulation therapy various gonadotropic factors are used, and for replacement therapy, male sex hormone (testosterone propionate). With these two types of therapy it is possible to produce striking genital growth and overcome any deficiency of male sex hormone production. Examples will be

shown of the effect of treatment with gonadotropic factors in boys with undescended testes and in boys and men with the Fröhlich syndrome; and the effect of treatment of eunuchoidism with male sex hormone, before and after the age of puberty.

10:30 INTERMISSION TO VIEW THE EXHIBITS

11:00 "Endocrinology—Its Application to the Human Needs"

JAMES R. GOODALL, M.D., Montreal, Quebec



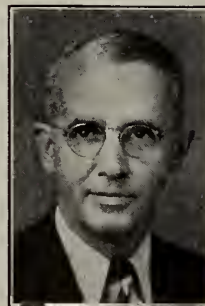
JAMES R. GOODALL

Professor Clinical Gynecology and Obstetrics (McGill); Gynecologist and Obstetrician to the Royal Victoria Hospital; Consultant (in charge) St. Mary's Hospital (Montreal); Consultant Gynecologist and Obstetrician to the Homeopathic Hospital and the Jewish General Hospital (Montreal).

Endocrinology is the science of the glands of internal secretion. Certain glands of internal secretion have been known for generations, but the action of these and of others is a recent discovery. The subject has now broadened to include all those body secretions that govern function—that govern and regulate, but do not create function. Function itself is inherent in the specific organ itself. But its governance is vested in some gland. In this way glands are the coördinators of function in the whole body, so that organs are not working at cross purposes. The functions of the body are coördinated by the autonomic nervous system. The human body contains two complete nervous systems: the one commonly known to the laity as the brain and spinal cord and their ramifications to every part of the body is fed by experiences through the five senses, and thereby gives man his orientation in the universe; the other, the autonomic system, has no external end-organs, but links up the various organs in a system of telephony whereby a maximum of function is effected with a minimum of effort. This system gives each organ its orientation in the complex animal body. It is the telephonic system between cell-communities so that they do not work at cross purposes. Gland secretions may act directly upon individual cells, or indirectly upon tissue through the autonomic nervous system. Some glands have specific actions upon specific functions, others are general activators. The intelligent practice of endocrinology requires, perhaps more than any other branch of medicine, discriminating diagnostic power, painstaking history taking, keen psychological acumen, and a good working knowledge of the action of internal secretions.

11:30 "Public School Problems in Special Classes"

ARCH O. HECK, Ph.D., Columbus, Ohio



ARCH O. HECK

(Synopsis of this lecture will appear in the September issue)

ACKNOWLEDGMENT: The Michigan Crippled Children Society and the Michigan Department of Public Instruction are sincerely thanked for their sponsorship of this lecture.

TUESDAY MORNING September 19, 1939

M.

12:00 "Recent Advances in Ophthalmology"

SANFORD R. GIFFORD, M.D., Chicago, Ill.



SANFORD R. GIFFORD

M.A., University of Nebraska 1924; M.D., University of Nebraska, 1918; First Lt. United States Medical Corps 1918-1919; Professor of Ophthalmology at Northwestern University since 1929; Attending Ophthalmologist at Cook County Hospital, Passavant Memorial Hospital and Wesley Memorial Hospital; Associate Editor of Archives of Ophthalmology.

1. Trachoma. Its etiology. Importance of epithelial inclusion bodies. Work of Thygeson, Lindner and others. Possible relationship to Rickettsia group of viruses. Relation of trachoma to inclusion blenorrhea.

2. Surgical treatment of Retinal Detachment, Work of Gonin, Afar, Walker, Weve and others. Importance of Retinal holes. Method of closing holes by micro-coagulation. Results.

3. Keratoplasty. Limited field of corneal grafting. Methods of Filatow, Castroviejo and others. Requirements: a partially clear cornea with normal posterior segment.

P. M.

12:30 End of First General Assembly Luncheon

VIEW THE EXTRAORDINARY EXHIBIT OF 100 SPACES

TUESDAY AFTERNOON September 19, 1939

Second General Assembly

Black and Silver Ballroom, Civic Auditorium

ROY H. HOLMES, M.D., Presiding

L. FERNALD FOSTER, M.D., and F. BRUCE FRALICK, M.D., Secretaries

1:30 "Gastrointestinal and Hepatic Function in Congestive Circulatory Failure"

JONATHAN CAMPBELL MEAKINS, M.D., Montreal, Quebec



J. C. MEAKINS

Charter Fellow and First President (1929-31), Royal College of Physicians and Surgeons of Canada; Fellow of the American College of Physicians, 1928; Member of the Board of Regents 1928-38; President 1934-35; President, Canadian Medical Association, 1935-36; and Member of the American Board of Internal Medicine, 1936.

Our knowledge of circulatory failure has been accumulated with much patience and labor. The anatomical, hydrodynamic and physical aspects in many organs have been studied in much detail but still the secret of its

initiation and perpetuation remains elusive. Enlargement of the liver may be early and progressive. At the autopsy table nutmeg liver and cyanotic atrophy have been described but little attention has been paid to the functional and nutritional results of these and their importance. Further, the impairment of the gastrointestinal circulation has also been neglected. It is with these aspects of circulatory failure that the present communication deals.

2:00 "Adolescence"

BERT I. BEVERLY, M.D., Chicago, Ill.



BERT I. BEVERLY

"Assistant Professor of Pediatrics; Head of Clinic in Pediatrics Department, Rush Medical College, University of Chicago; Associate Attending Neurologist, Children's Memorial Hospital; Staff, Presbyterian Hospital, Chicago. Fellow American Academy of Pediatrics; Chairman Mental Hygiene Committee of American Academy of Pediatrics.

Adolescence is the period during which children grow up and take on the characteristics of adults. Like any other period of growth, it has characteristics and presents problems which are both general and peculiar to that phase of development. Emotional problems are the most important and least understood. The seriousness of these problems depends upon early training. It is necessary to understand them if we are going to help boys and girls through this difficult period.

2:30 INTERMISSION TO VIEW THE EXHIBITS

P. M.

3:00 "Evaluation of Total, Differential and Absolute Leukocyte Counts"

EDWIN E. OSGOOD, M.D., Portland, Ore.



EDWIN E. OSGOOD

University of Oregon Medical School, 1924; Assistant Professor of Biochemistry, 1928-33; Director of Laboratories, 1928-36; Assistant Professor of Medicine, 1929-39; Associate Professor of Medicine, 1939; Head of the Division of Experimental Medicine, 1936 to present. Member of American Society for Clinical Investigation; American Society of Clinical Pathologists.

Sources of error in the counting of the different kinds of white blood corpuscles and the diagnostic help which such counts may give the physician will be described. Tables aiding the physician or technician to recognize and name the different kinds of white blood corpuscles will be shown. New data on the normal types and numbers of white blood corpuscles in the blood of healthy persons of different age and sex groups will be given. The value of changes in the appearance of the white blood corpuscles as a method of determining the seriousness of an illness will be discussed. The diagnosis of the different types of leukemias will be discussed.

TUESDAY AFTERNOON

September 19, 1939

3:30 "Certain Symptoms Common to the Nose, Explained on a Physiologic Basis"

H. I. LILLIE, M.D., Rochester, Minn.



H. I. LILLIE

Rhinological and Otolaryngological Society, Inc.

Received the degree of B.A. in 1910 and of M.D. in 1912 from University of Michigan. Chief of the Section on Otolaryngology and Rhinology The Mayo Clinic; Professor of Otolaryngology and Rhinology, the Mayo Foundation, University of Minnesota; Attending Otolaryngologist and Rhinologist of the Kahler, St. Mary's, and Colonial Hospital Rochester, Minn.; Medical Head of the Worrall Hospital, Rochester, Minn.; Past-President of the American Laryngological,

Because the actual physiologic activity of the upper part of the respiratory tract was hardly touched upon, perhaps not even mentioned, during their school years, physicians in general can hardly be expected to know much about the subject. Certain phenomena referable to the nose, quite normal in the final analysis, cause patients to complain because they do not understand. It should be incumbent on their medical advisers to distinguish between physiologic and pathologic symptoms referable to whatever system to which the complaint is referred. It happens that the nose performs its function in an orderly manner by virtue of its wonderfully adaptive physiologic mechanism. This mechanism is described and variations in responses due to environment are explained.

4:00 "The Management of Gastric and Duodenal Ulcer"

I. S. RAVDIN, M.D., Philadelphia, Penna.



I. S. RAVDIN

Harrison Professor of Surgery, School of Medicine, University of Pennsylvania and Director of the Harrison Department of Surgical Research, School of Medicine, University of Pennsylvania; Surgeon, Hospital, University of Pennsylvania.

The etiologic factors concerned with gastric and duodenal ulcer are still not clearly defined, but there is a good deal of evidence to suggest that these lesions are associated with disturbances in nutrition. In the majority of instances the uncomplicated gastric or duodenal ulcer is a medical problem. Surgery is useful in the management of certain of the complications of ulcer. A rational program for the management of ulcers will be presented, together with the indications for operation and the pre- and post-operative management.

4:30 End of Second General Assembly

THE ONE HUNDRED EXHIBITS WILL REMAIN OPEN FOR YOUR INSPECTION UNTIL 6:00 P. M.

TUESDAY EVENING

September 19, 1939

Third General Assembly Public Meeting

Black and Silver Ballroom, Civic Auditorium

BURTON R. CORBUS, M.D., Presiding
L. FERNALD FOSTER, M.D., Secretary

MEDICAL SERVICE NIGHT

8:00 "Democracy at the Cross Roads"

EDWARD J. MCCORMICK, M.D., Toledo, Ohio



E. J. MCCORMICK

A.B., St. John's University, 1911; M.A., St. Louis University, 1913; M.D., St. Louis University, 1915. First Lieutenant Medical Corps U. S. A., attached to 46th North Midland Division, B.E.F., 1917-19; Captain and Major in 1919; Military Cross (British). Chief of Staff St. Vincent's Hospital, Toledo, 1939; Fellow, American College of Surgeons since 1924; Fellow, International College of Surgeons, 1939; member of American Medical Association, American Association for Advancement of Science, and Diplomate of American Board of Surgery, 1939; member of Alpha Omega Alpha, and Phi Beta Pi. Grand Exalted Ruler Benevolent and Protective Order of Elks of U. S. A., 1938-39.

Time will be devoted to a consideration of the development of the youngest nation in the world under a government by and for the people. The various inroads that are being made by a "boring from within program" which threatens the democracy of the United States, will be pointed out. In conclusion, Doctor McCormick will point out that the present-day efforts to change medical practice in the United States are the back-wash of Communism and Totalitarianism upon our shores and that the interference with private initiative in medicine and surgery is but the opening wedge for the same type of interference in every business and profession.

End of Third General Assembly

Get Acquainted Dinner for all Medical Women, sponsored by the Grand Rapids Women Physicians, will be held Tuesday, September 19, 6:30 P. M., Pantlind Hotel, Grand Rapids. Chairman of the Hostess Committee is Ruth Herrick, M.D., 26 Sheldon Avenue, S. E., Grand Rapids.

PROGRAM of SECTIONS

WEDNESDAY MORNING

September 20, 1939

SECTION ON GENERAL MEDICINE

Chairman: DOUGLAS DONALD, M.D., Detroit
Secretary: PAUL W. KNISKERN, M.D., Grand Rapids

Grand Ballroom, Pantlind Hotel

A. M.

9:30 to 10:00 Round Table Discussion on
Functional Gastro-Intestinal Disorders

Conducted by J. C. MEAKINS, M.D., Montreal

10:00 to 10:30 "Outbreak of Undulant Fever
at Michigan State College"

CHAS. F. HOLLAND, M.D., East Lansing

10:30 to 11:00 "Differentiation of Types of
Arthritis, Especially in Regard to Treat-
ment"

RICHARD H. FREYBERG, M.D., Ann Arbor

11:00 to 11:30 "Renal Insufficiency"

EDGAR NORRIS, M.D., Detroit

11:30 to 12:00 "Recent Contributions to the
Treatment of Addison's Disease"

W. O. THOMPSON, M.D., Chicago

12:00 to 12:30 "Gastrosocopy"

H. M. POLLARD, M.D., Ann Arbor

Election of Officers

SECTION ON SURGERY

Chairman: WM. A. HYLAND, M.D., Grand Rapids
Secretary: IRA G. DOWNER, M.D., Detroit

Black and Silver Ballroom, Civic Auditorium

"Symposium on the Acute Abdomen"

A. M.

9:30 to 10:00 "The Acute Appendix"

FREDERICK A. COLLIER, M.D., Ann Arbor

10:00 to 10:30 "Intestinal Obstruction"

RICHARD B. CATTELL, M.D., Boston

10:30 to 11:00 "The Acute Gall Bladder"

I. S. RAVDIN, M.D., Philadelphia

11:00 to 11:30 "Perforated Gastric and Duo-
denal Ulcers"

CHARLES JOHNSTON, M.D., Detroit

11:30 to 12:00 Discussion and Summary of
Above

WALTMAN WALTERS, M.D., Rochester, Minn.

Election of Officers

SECTION ON OBSTETRICS AND GYNECOLOGY

Chairman: CLARENCE E. TOSHACH, M.D., Saginaw
Secretary: HARRY A. PEARSE, M.D., Detroit

Supper Club Room—Pantlind Hotel

A. M.

9:30 to 10:00 "Clinical Aspects of Endome-
trial Biopsy in 300 Cases"

LUCIAN GRIFFITH, M.D., and W. L. MCBRIDE,
M.D., Grand Rapids

10:00 to 10:45 "Special Features in Anatomy
and Operative Procedures in Surgically
Difficult Growths of the Female Pelvic
Viscera"

ARTHUR H. CURTIS, M.D., Chicago

10:45 to 11:15 "Chorio-epithelioma"

MILO R. WHITE, M.D., Detroit

11:15 to 12:00 "Interstitial or Stromatous En-
dometriosis"

JAMES GOODALL, M.D., Montreal

Election of Officers

SECTION ON OPHTHALMOLOGY AND OTOLARYNGOLOGY

Chairman: F. BRUCE FRALICK, M.D., Ann Arbor
Secretary: O. B. MCGILLICUDDY, M.D., Lansing

OPHTHALMOLOGY

Directors Room—Civic Auditorium

A. M.

9:00 Appointment of Nominating Committee

9:00 to 9:45 "Indications for Operations in
Strabismus"

JAMES W. WHITE, M.D., New York

9:45 to 10:15 Discussion

10:15 to 10:30 "Factors Concerning Toxicity
of Copper as Intraocular Foreign Body"

LEWIS S. LEO, M.D., Houghton

10:30 to 10:45 "Cycloplegics"

GAYLE H. MEHNEY, M.D., Grand Rapids

10:45 to 11:00 "Treatment of Burns of the
Eye"

E. L. WHITNEY, M.D., Detroit

11:00 to 11:15 "Colobomas of the Optic
Nerve"

ALBERT S. BARR, M.D., Ann Arbor

11:15 to 12:00 "Treatment of Less Common
Corneal Lesions"

SANFORD GIFFORD, M.D., Chicago

12:00 to 12:30 Discussion

WEDNESDAY MORNING September 20, 1939

OTOLARYNGOLOGY

Room "G"—Civic Auditorium

A. M.

9:30 to 10:30 "Chronic Otitis Media and Its Complications"

HAROLD I. LILLIE, M.D., Rochester, Minn.
Discussion: CARL WENCKE, M.D., Battle Creek

10:30 to 11:00 "Orbital Complications of Sinus Disease"

WALLACE H. STEFFENSEN, M.D., Grand Rapids
Discussion: WM. S. GONNE, M.D., Detroit

11:00 to 11:30 "Modifications of the Submucous Resection"

H. LEE SIMPSON, M.D., Detroit
Discussion: FERRIS SMITH, M.D., Grand Rapids

11:30 to 12:00 "Biological Factors in Chronic Sinus Disease"

R. WALLACE TEED, M.D., Ann Arbor
Discussion: DEWEY HEETDERKS, M.D., Grand Rapids

12:00 to 12:30 "Tumors of the Parotid Gland"

A. C. FURSTENBERG, M.D., Ann Arbor
Discussion: EMIL AMBERG, M.D., Detroit

12:45 Luncheon and Election of Officers

SECTION ON PEDIATRICS

Chairman: WARD L. CHADWICK, M.D., Grand Rapids
Secretary: HARRY A. TOWSLEY, M.D., Ann Arbor

Red Room—Civic Auditorium

A. M.

9:30 "Chemotherapy in Otitis Media in Infants and Children"

MOSES COOPERSTOCK, M.D., Marquette

9:50 "The Necessity of Early Surgical Treatment of Otitis Media"

JAMES H. MAXWELL, M.D., Ann Arbor

10:10 "Chemotherapy of Pneumonia"

JAMES WILSON, M.D., Detroit

10:30 "Vitamins in Relation to Anorexia"

BRENTON M. HAMIL, M.D., Detroit

10:50 "Carotene Absorption by Various Mineral Oils"

ARTHUR C. CURTIS, M.D., Ann Arbor, and
ROBERT S. BALLMER, M.D., Midland

11:10 "Some Psychogenic Aspects of Anorexia"

BERT I. BEVERLY, M.D., Chicago

11:30 "The Relation of Heart Disease to Growth and Vitamin 'A'"

HUGH McCULLOCH, M.D., St. Louis

11:50 Business Meeting and Election of Officers

12:15 Adjournment

SECTION ON DERMATOLOGY AND SYPHILOLOGY

Chairman: RUTH HERRICK, M.D., Grand Rapids
Secretary: EUGENE A. HAND, M.D., Saginaw

Room "F"—Civic Auditorium

A. M.

9:30 "Chairman's Address"

RUTH HERRICK, M.D., Grand Rapids

10:00 "Photography in Dermatology"

ARTHUR A. SCHILLER, M.D., Detroit

10:30 "The Use of Cantery in Dermatology"

UDO J. WILE, M.D., Ann Arbor

11:00 "Introduction of a Relatively Painless Electrolysis Instrument"

EUGENE A. HAND, M.D., Saginaw

11:30 "The Indications and Contra-Indications for Radium and X-Ray Therapy"

C. GUY LANE, M.D., Boston

12:00 (noon) Election of Officers

* * *

Pantlind Hotel

P. M.

12:30 Luncheon—"Allergy in Industrial Dermatitis"

LOUIS SCHWARTZ, M.D., Washington, D.C.

5:30 Reception for Members of the Section of Dermatology and Syphilology
Out of State Speakers as Guests
Cocktail Lounge—Pantlind Hotel

THE 100 EXHIBITS ARE WELL WORTH
YOUR TIME

A Special Meeting on Medical Service Problems will be held Sunday, September 17, 1939, at 8:30 P. M. in the Grand Ballroom, Pantlind Hotel, Grand Rapids. All M.S.M.S. Delegates and Members are invited and urged to attend this session at which Group Medical Care Plans, Welfare, and the Afflicted-Crippled Children Laws will be discussed.

PROGRAM of GENERAL ASSEMBLIES

WEDNESDAY AFTERNOON

September 20, 1939

Fourth General Assembly

Black and Silver Ballroom, Civic Auditorium

A. S. BRUNK, M.D., Presiding

L. FERNALD FOSTER, M.D., and HARRY A. TOWSLEY, M.D., Secretaries

P. M.

1:30 "Neuritis"

HENRY W. WOLTMAN, M.D., Rochester, Minn.



HENRY W. WOLTMAN

M.D. from University of Minnesota in 1913; Ph.D. in Neurology from University of Minnesota 1917. Head of Section on Neurology at Mayo Clinic; Professor of Neurology, The Mayo Foundation. Served as First Lieutenant in the Medical Corps during the war. Fellow of A.M.A., A.C.P., member of Minnesota Society of Neurology and Psychiatry, the Central Neuropsychiatric Association, the American Neurological Association, Sigma Xi and Alpha Omega Alpha.

There is hardly a field of medical practice in which some form of neuritis is not encountered at one time or another. The wide variety of clinical pictures neuritis may present, the many circumstances under which it may occur and the numerous unsolved problems that are constantly intruding themselves, soon make it apparent that each case is deserving of the utmost care in clinical study and judgment.

Commonest cause of neuritis of an isolated nerve is some mechanical injury. Causes of so-called multiple neuritis include bacterial infections, viruses, metabolic disorders, deficiencies, poisons, and vascular diseases.

Treatment must be guided by finding and dealing with the cause, if possible, and by instituting such adjuvant measures as physiotherapy, chemotherapy, roentgenotherapy, diet, and surgery.

2:00 "Skin Diseases Affecting the Hands"

C. GUY LANE, M.D., Boston, Mass.



C. GUY LANE

M.D. Harvard Medical School, 1908; Member of Department of Dermatology, Massachusetts General Hospital, since 1920, Chief since 1932; Head of Department of Dermatology, Harvard Medical School, since 1936; On Editorial Board New England Journal of Medicine, Archives of Dermatology and Syphilology; Member American Board of Dermatology and Syphilology, National Committee on Industrial Dermatoses, American Dermatological Association (president, 1935).

Various manifestations of skin affections on the hands and wrists will be discussed, not only of the diseases which are apt to be localized on these areas, but also of the appearance on the hands of various general skin diseases. The group of diseases presenting vesicles will be discussed, the

squamous group and the keratotic group, and something will be said of significant nail changes. The differential diagnosis of the most important diseases will be reviewed, and emphasis will be placed on certain industrial phases of hand conditions. Treatment will also be discussed and lantern slides of various clinical manifestations will be shown, some of them in color.

2:30 INTERMISSION TO VIEW THE EXHIBITS

3:00 "Strabismus in Children"

JAMES WATSON WHITE, M.D., New York City



JAMES W. WHITE

M.D., Albany, 1905. Professor of Ophthalmology, New York Past Graduate Medical School and Hospital (Executive Officer); Consulting Ophthalmologist, Roosevelt Hospital, New York; Consulting Myologist, Brooklyn Eye and Ear Hospital, Brooklyn; Past Chairman, Eye Section, New York Academy of Medicine; Member, A.M.A., American Ophthalmological Society, American Academy of Ophthalmology and Otolaryngology, New York Academy of Medicine and New York Ophthalmological Society.

The etiology of strabismus in children varies so widely that mistaken diagnoses and entirely wrong conceptions of a squint are frequent. Hypermetropia is so frequently found that glasses are supposed to correct most cases of convergent, and many cases of divergent strabismus. This has led to many errors in both diagnosis and treatment.

Convergent strabismus may be due to hypermetropia, but myopia may also cause the eyes to cross. They may also cross because of an excessive act of convergence, or to an underaction of the diverging function. These, however, may look very much like strabismus due to an overacting adductor muscle or to an underacting abductor muscle. Divergence strabismus may also be due to hypermetropia, or to myopia, or to an underaction of convergence, or to an overaction of divergence. Vertical strabismus may be due to an overaction or an underaction of the muscles of elevation or depression or to an anomaly of sursumvergence.

Cases are seen where the difference in level seems to be the whole cause or a contributing cause of the excessive convergence or divergence. Various congenital anomalies will be illustrated by lantern slides and drawings.

3:30 "Treatment of Rheumatic Children"

HUGH McCULLOCH, M.D., St. Louis, Mo.



HUGH McCULLOCH

M.D., Johns Hopkins University, 1912. Associate Professor of Pediatrics, Washington University School of Medicine; Associate Physician, St. Louis Children's Hospital; Physician in Charge, Convalescent Department, Children's Hospital; Children's Cardiac Clinic, Washington University Dispensary; Community School. Co-Editor, Journal of Pediatrics; Associate Editor American Heart Journal. Secretary, American Pediatric Society; Founder Member and one time member Board of Directors, American Heart Association; Fellow, American Academy of Pediatrics.

WEDNESDAY AFTERNOON September 20, 1939

Treatment of rheumatic fever and heart disease based on general principles applied to individual patients.

Essential factors to be properly estimated: (1) heredity; (2) social status; (3) time of year; (4) age of patient; (5) number of attacks; (6) type of attack; (7) location and degree of injury to local parts of body.

Patients may be grouped as: I. Rheumatic fever without heart disease; (a) active, and (b) inactive. II. Rheumatic heart disease without complete failure; (a) active, and (b) inactive.

III. Rheumatic heart disease with congestive failure; (a) active, and (b) inactive.

Discussion of details applicable to patient at any stage of this scheme.

4:00 "Management of Carcinoma of the Cervix"

ARTHUR HALE CURTIS, M.D., Chicago, Ill.



ARTHUR H. CURTIS

M.D., Rush Medical College, 1905; LL.D., University of Wisconsin, 1935; Chief of the Gynecologic Service, Passavant Memorial Hospital, Chicago; Professor of Obstetrics and Gynecology, and Chairman of Department, Northwestern University Medical School.

Presentation of personal experience and views relative to examinations for establishment of the diagnosis. Outline of details in the management of various types of cervical cancer commonly encountered. Lantern demonstration of special features in anatomy concerned, and pictures of unusually interesting cases.

4:30 "Differential Diagnosis and Treatment of Jaundice"

WALTMAN WALTERS, M.D., Rochester, Minn.



WALTMAN WALTERS

M.D., Rush Medical College in 1920; head of Section in Surgery of Mayo Clinic since 1924; Professor Surgery since 1936 in the Mayo Foundation. He is a Commander, Volunteer service in the Medical Corps of the U. S. Naval Reserve. He is a member of the editorial board of "Minnesota Medicine" and Chairman of the editorial board of the "Archives of Surgery." He is a Fellow of the American College of Surgeons, the American Surgical Association, the American Medical Association, the Society of Clinical Surgery, the American Urological Association, Sigma Xi, Phi Beta Kappa, Psi Upsilon, and Alpha Kappa Kappa.

The etiology, symptomatology, and the treatment of obstructive jaundice will be considered. Attention will be directed to the possible sources of error in the diagnosis of stone in the common bile duct, pancreatitis and carcinoma. A résumé will be given of the newer preoperative measures directed to prevent bleeding in cases of jaundice; this will include a consideration of the use of vitamin K.

4:50 End of Fourth General Assembly

SAVE AN ORDER FOR AN M.S.M.S.
EXHIBITOR

WEDNESDAY EVENING September 20, 1939

Fifth General Assembly Public Meeting

Black and Silver Ballroom, Civic Auditorium

HENRY A. LUCE, M.D., Presiding

L. FERNALD FOSTER, M.D., Secretary

PRESIDENT'S NIGHT

P. M.

8:00 1. Call to order by the President

2. Invocation—

3. Address of Welcome—Wm. R. Torgerson, M.D., President of Kent County Medical Society, Grand Rapids

4. Announcements and Reports of the House of Delegates, by the Secretary

8:15 5. President's Annual Address—Henry A. Luce, M.D., Detroit

6. Induction of Burton R. Corbus, M.D., Grand Rapids, into Office as President of the M.S.M.S.

Presentation of Scroll and Past President's Key to Henry A. Luce, M.D., Detroit
Responses

7. Resolutions and motions

8. Introduction of the President-Elect, and other new officers of the Michigan State Medical Society

8:45 9. The Andrew P. Biddle Oration:
"What Price Depression"

ROCK SLEYSER, M.D., Wauwatosa, Wis.,
President, American Medical Association



ROCK SLEYSER

M.D., University of Illinois College of Medicine, 1902; Directed the building of the Wisconsin Hospital for the Criminal Insane and later became director of the Milwaukee Sanitarium, which positions he still holds. Elected Secretary of the Wisconsin State Medical Society in 1914 and held this position until 1924 when he was elected President. Since 1925 he has been Treasurer of the Society. From 1918 to 1923 Doctor Sleyser was editor of the Wisconsin Medical Journal. From 1915 to 1926 he served as Delegate to the A.M.A. and during the last four years of that period was Vice Speaker of the House of Delegates. He became trustee of the A.M.A. in 1926 and served until 1937, being chairman of the Board from 1935 to 1937. Elected President of the American Medical Association in 1938. Doctor Sleyser is a fel-

WEDNESDAY EVENING

September 20, 1939

low and member of the board of governors of the American College of Physicians, and member of the American Psychiatric Association, the Association for Research in Nervous and Mental Diseases, and the Central Neuropsychiatric Association.

Presentation of Biddle Oration Scroll to Dr. Sleyster



A. P. BIDDLE, M.D., Detroit
Patron of Postgraduate Medical Education

10.00 End of Fifth General Assembly

THURSDAY MORNING

September 21, 1939

Sixth General Assembly

Black and Silver Ballroom, Civil Auditorium

GEORGE A. SHERMAN, M.D., Presiding
L. FERNALD FOSTER, M.D., and OTTO O. BECK, M.D., Secretaries

A. M.

9:30 "Pre-Natal and Post-Natal Care of a Pregnant Diabetic Woman"

ANTHONY SINDONI, JR., M.D., Philadelphia, Penna.



ANTHONY SINDONI, JR.

Chief of the Department of Metabolism at the Philadelphia General Hospital; Chief Metabolic Consultant at the American Oncologic Hospital; Author of the Book, *Diabetes: A Modern Manual*; and author of numerous papers on diabetes.

In spite of insulin, and other modern care, the pregnant diabetic woman confronts the obstetrician and the internist with a serious problem—the chances of having a live, normal child survive. This desire can be further realized by closer coöperation of the obstetrician and internist; more reliance upon blood chemistry; careful study of individual carbohydrate tolerance throughout pregnancy with insulin dose adjusted according to its variation; optimum and adequate diet; choice of delivery to be decided by the obstetrician, internist and condition of patient. Following delivery increased hyperglycemia or acidosis is not to be overlooked in the mother

though improvement is not infrequent. In the child hypoglycemia reactions are not uncommon, which are to be combated by glucose—orally or intramuscularly. Signs of asphyxia are also to be suspected in the newborn and corrected by respiratory of oxygen and other appropriate measures or respiratory stimulants.

10:00 "Management of Occiput Posterior"

L. A. CALKINS, M.D., Kansas City, Mo.



L. A. CALKINS

M.D., University of Minnesota, 1919; M.S., University of Minnesota, 1920; Ph.D., University of Minnesota, 1921. Assistant Professor Obstetrics and Gynecology, University of Minnesota, 1921-24; Professor of Obstetrics and Gynecology, University of Virginia, Department of Medicine, 1924-29; Professor Obstetrics and Gynecology, University of Kansas, Medical School, 1929 to present time. Co-author with R. E. Scammon "Growth in the Fetal Period." Member Central Association of Obstetricians and Gynecologists and of American Association of Anatomists; Fellow American Gynecological Society, American Association of Obstetricians, Gynecologists and Abdominal Surgeons.

By carefully compiling 2,500 consecutive labor records it has now been found evident that occiput posterior occurs with about equal frequency with occiput anterior. Maternal morbidity is only slightly, if any, greater in occiput posterior; fetal mortality is the same or less; operative delivery is scarcely more frequent; spontaneous internal rotation will occur with about the same frequency as in occiput anterior. The only definite difference between occiput posterior and occiput anterior is the slightly longer labor in the former.

ACKNOWLEDGMENT: The W. K. Kellogg Foundation is sincerely thanked for its sponsorship of this lecture.

10:30 INTERMISSION TO VIEW THE EXHIBITS

11:00 "Occupational Dermatoses"

LOUIS SCHWARTZ, M.D., Washington, D.C.



LOUIS SCHWARTZ

M.D., Jefferson Medical College, 1905; Entered U. S. Public Health Service 1906, and has served in various parts of the United States, Canada, Alaska, and the Philippines. Engaged in industrial hygiene service since 1920, has done investigations and written papers on Posture, Lighting, Radium poisoning, Lead poisoning, Trachoma, Occupational and other forms of contact Dermatitis, and written a textbook on Occupational Diseases of the Skin. Doctor Schwartz is now in charge of the

Office of Dermatoses Investigations of the U. S. Public Health Service at the National Institute of Health, Bethesda, Maryland.

Occupational dermatoses comprise 70 per cent of all occupational diseases and cost the United States about 4 million dollars per year.

Certain chemicals are primary skin irritants, while others irritate only the hypersensitive.

Knowledge of dermatology and familiarity with the personal and occupational history and occupational processes, together with the proper application and evaluation of the patch test, are necessary for correct diagnoses.

Severe cases should be removed from work; mild cases should be treated and continue at work, as they may thus develop an immunity.

The medicinal treatment should consist of only the mildest lotions and ointments.

THURSDAY MORNING

September 21, 1939

11:30 "Some Practical Points in Diagnosis and Treatment in Otolaryngology of Importance to the General Practitioner"

HENRY M. GOODYEAR, M.D., Cincinnati, O.



HENRY M. GOODYEAR

M.D., Northwestern University, 1915; Assistant Professor of Otolaryngology, Cincinnati University, College of Medicine; Assistant Director (Otology) Otolaryngology, Cincinnati General Hospital; Associate Otolaryngologist, Cincinnati Children's Hospital; Attending Otolaryngologist, Christ Hospital. Fellow American Laryngological Society, American Otological, American Academy of Ophthalmology and Otolaryngology and American College of Surgeons.

The treatment of traumatic injuries to the external ear, and infections of the external auditory canal. Acute and chronic infections of the middle ear and mastoid. What constitutes a dangerous ear?

A brief comment on the use of sulfanilamide in ear and throat infections.

External infections of the nose and nasal fractures. What shall be the immediate treatment? Nasal hemorrhages.

Comments on nasal sinus infections, treatment and the prevention of chronic bronchitis.

Emergency incision for an intraorbital abscess. Retropharyngeal abscess. Throat hemorrhages.

Relation of age to tonsil and adenoid operations. Early symptoms of carcinoma of the larynx.

M.

12:00 "Pyuria: Its Diagnostic Significance"

BUDD C. CORBUS, M.D., Chicago, Ill.



BUDD C. CORBUS

Formerly Professor of Genitourinary Diseases at University of Illinois. Formerly Instructor at Rush Medical College, Chicago, Ill. Founder of the Illinois Social Hygiene Dispensary, Chicago; Director of the Evanston Social Hygiene Dispensary, Evanston; Attending Urologist at Evanston Hospital; Collaborator Cabot's Textbook of Urology; Collaborator History of Urology, American Urological Association, member of American Urological Association.

Pyuria, or pus in the urinary tract, is the most common urological finding that occurs in the general practice of medicine. However, its exact source is often most difficult to discover. With the modern diagnostic methods that the urologist is familiar with plus additional information obtained from subcutaneous urography in children and intravenous and retrograde urography in adults, it should not be so difficult provided a systematic method of procedure in hunting for the original foci of infection is closely adhered to.

In order to better study the etiological factors that produce pyuria, infections of the urinary tract are considered as coming from two sources; i.e.,

- From outside of the body,
- From inside the body.

P. M.

12:30 End of Sixth General Assembly Luncheon—

DON'T FAIL TO VISIT THE \$60,000 EXHIBIT ARRANGED FOR YOUR CONVENIENCE

THURSDAY AFTERNOON

September 21, 1939

Seventh General Assembly

Black and Silver Ballroom, Civic Auditorium

H. ALLEN MOYER, M.D., Presiding
L. FERNALD FOSTER, M.D., and EUGENE HAND, M.D., Secretaries

PREVENTIVE MEDICINE ASSEMBLY

1:30 "The Importance of Latent Syphilis from the Standpoint of the General Practitioner"

HAROLD N. COLE, M.D., Cleveland, O.



HAROLD N. COLE

Professor of Dermatology and Syphilology, Western Reserve University; Member, Council of Pharmacy and Chemistry, American Medical Association; Member, American Board of Dermatology and Syphilology; Former Secretary and President of the Section on Dermatology and Syphilology, American Medical Association; Former President, American Dermatological Association; Member Cooperative Clinical Group and of the Surgeon General's Advisory Committee on Syphilis.

The word latent is derived from the Latin word "latere," to be hidden or concealed. Latent syphilis is a type, usually revealing itself by positive serologic blood tests. Physical examinations may be negative, and yet completely beneath the surface the disease may be really active, as in a syphilitic aortitis.

Latent syphilis is important because it is so often unrecognized, and even unknown to its victim. This is especially true of women, and the percentage of asymptomatic syphilitic infections in women runs very high.

Yet latent syphilis may still be contagious, and the incidence of conjugal infection is high. Moreover, the disease may be transferred from mother to child in pregnancy and by blood donors in transfusion.

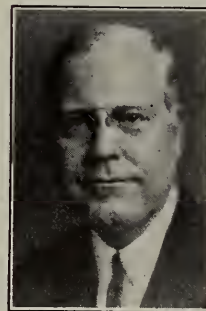
Routine use of serologic blood tests should be used by the medical man in all pregnant women and in all new cases seen in practice.

The earlier latent syphilis is discovered and the patient put under treatment, the better the response.

Ordinarily latent syphilis responds nicely to routine treatment with alternate courses of accepted arsenicals and bismuth salts. Such cases should receive more of the heavy metal than of arsenical treatment.

2:00 "The Modern Approach to the Earlier Diagnosis of Pulmonary Tuberculosis"

JAMES ALEXANDER MILLER, M.D., New York City



JAMES A. MILLER

Physician-in-Charge of the Tuberculosis Service at Bellevue Hospital for thirty-five years, now Consultant Physician in the same service. Professor of Clinical Medicine, College of Physicians and Surgeons, Columbia; Consultant Physician at the Presbyterian Hospital, Post-Graduate Hospital and Brooklyn Hospital. Formerly President of the New York Tuberculosis Association, National Tuberculosis Association, New York Academy of Medicine and at present President of

the Trudeau Sanatorium.

THURSDAY AFTERNOON September 21, 1939

The really early diagnosis of pulmonary tuberculosis is still comparatively rare. What in this paper is termed the modern approach to earlier diagnosis is based upon the concept of the pathogenesis of the disease. It is now more and more generally recognized that pulmonary tuberculosis is secondary to a previous lesion usually in the tracheobronchial lymph nodes and that the infection reaches the lungs through the lymph and blood stream.

The first lesions which are there produced are very small and usually of no clinical significance and can be recognized only by careful x-ray examination. It is from these lesions, however, that the majority of serious cases of pulmonary tuberculosis arise.

The reasons for this are discussed in this paper as well as the evidences of their change from benign to malignant lesions. The x-ray, therefore, becomes the most important means at our disposal and interpretation of the x-ray findings is the measure of our ability to make earlier diagnosis. X-ray surveys of apparently well people are becoming more and more common and it is through the proper interpretation of such x-rays and the following up of the subsequent behavior of apparently inactive lesions that the really early diagnosis of clinically active tuberculosis is to be made.

ACKNOWLEDGMENT: The Michigan Tuberculosis Association is sincerely thanked for its sponsorship of this lecture.

2:30 INTERMISSION TO VIEW THE EXHIBITS

3:00 "Sickness Disability Among Wage-Earners"

McIVER WOODY, M.D., New York City



McIVER WOODY

M.D., Harvard, 1912; Secretary of Faculty of Medicine, 1917-18; University of Tennessee: Dean and Professor of Surgery, 1920-21; Medical Department, Standard Oil Company of New Jersey 1922 to present; President American Association of Industrial Physicians and Surgeons.

Statistics show that, in organizations where accident prevention has been most successful, fifteen to twenty days are lost because of sickness for every day that is lost because of accident. Although industrial physicians are primarily concerned with accidents and occupational diseases, and rightly so, they can do much to control the incidence of ordinary illness within factory and plant: first, by seeing to it that when defects are brought to light at physical examination, the family physician is consulted without delay; and second, by collecting statistics on loss of time from sickness and studying them more critically than ever before.

3:30 "The Control of Pneumonia"

LLOYD D. FELTON, M.D., Washington, D. C.



LLOYD D. FELTON

M.D., Johns Hopkins, 1916; Sc.D., Wooster, 1925. Associate in Pathology and Bacteriology, Johns Hopkins, 1916-20; Associate in Pathology, Rockefeller Institute, 1920-22; Assistant Professor of Preventive Medicine and Hygiene, Harvard Medical, 1922-35; Associate in Pathology and Bacteriology, Johns Hopkins, 1935-38; Senior Surgeon, U. S. Public Health Service, 1938 to present; Member: American Chemical Society, Society American Bacteriologists, American Association for Advancement of Science, Sigma Xi, Phi Beta Kappa.

tion for Advancement of Science, Sigma Xi, Phi Beta Kappa.

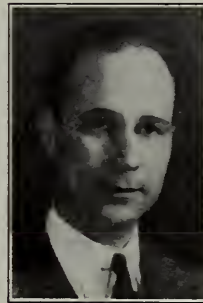
Control of pneumonia necessitates a study of possible prevention and improvement in methods of treatment. Prevention includes an understanding of the epidemiology of the disease taking into consideration variations in the infective agent and in factors which influence host resistance. Attempts have been made to estimate the host resistance by measuring the antibody response following the injection of antigenic polysaccharide. It has been observed that the same dose of a standard antigen stimulates response varying in degree in different individuals. It is possible that this variation is a measure of individual susceptibility to pneumonia and that the general population may be divided into susceptibles and non-susceptibles.

Significant advances have been made in improvement of treatment of pneumonia. Specific serum has established a base line by which any new form of treatment can be judged. For certainly mortality rate can be reduced by this form of treatment. The recently developed sulfapyridine apparently is at least as effective and less costly. But until a more extensive study of the pharmacology of the drug has been made, it should be used with caution. Combined serum and sulfapyridine treatment may be the most effective safe procedure.

ACKNOWLEDGMENT: The Michigan Department of Health is sincerely thanked for its sponsorship of this lecture.

4:00 "Surgical Treatment of Breast Cancer"

BENJAMIN RICE SHORE, M.D., New York City



BENJAMIN R. SHORE

A.B., University of Missouri, 1920; M.D., Harvard University, 1924; Fellow American College of Surgeons; Attending Surgeon St. Luke's Hospital, New York City.

Cancer of the breast is primarily a surgical disease and, beginning with the time a specimen is taken for histologic study, the patient should be in the hands of a surgeon competent, because of pathological and technical training, to proceed with radical surgery at the time. While we recognize that aspiration or punch biopsies in very competent hands have proved satisfactory, we do not believe that the average physician is either properly educated or technically able to remove adequate tissue by these means for the diagnosis of breast tumors in his patients. The risks inherent in this practice, which is rapidly gathering popularity, are considerable and its general use should be discouraged.

4:30 End of Seventh General Assembly

**YOUR FRIENDS IN THE EXHIBIT
HAVE SOMETHING NEW TO SHOW
YOU**

The Preventive Medicine Committee Reunion, for present and past members of the M.S.M.S. Preventive Medicine Committees, will be held Thursday, September 21, 1939, 12:30 to 1:30 P. M. in the Swiss Room of the Pantlind Hotel.

Dr. Lloyd D. Felton of Washington, D. C., will be guest speaker. His subject will be "Host Factors in Pneumonia."

All members of the M.S.M.S. are cordially invited to attend this subscription luncheon.

THURSDAY EVENING
September 21, 1939

Eighth General Assembly
Public Meeting

Black and Silver Ballroom, Civic Auditorium

JAMES D. BRUCE, M.D., Presiding
L. FERNALD FOSTER, M.D., Secretary

POSTGRADUATE CONVOCATION

P. M.

8:00 1. Call to order

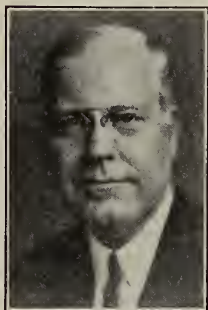
2. (a) "Postgraduate Education—Michigan's Experience"

JAMES D. BRUCE, M.D., Ann Arbor
Vice President in Charge of University Relations, University of Michigan; Chairman, Committee on Postgraduate Medical Education, Michigan State Medical Society.

(b) Presentation of Certificates of Associate Fellowship in Postgraduate Education, Michigan State Medical Society.

8:30 3. Address

JAMES ALEXANDER MILLER, M.D., New York City



JAMES A. MILLER

An appreciation of what Michigan is doing in Continuing Medical Education for practitioners in medicine, as well as an appreciation of the importance of the movement; comments and suggestions concerning the ways and means by which Continuing Medical Education can be most satisfactorily organized. Improving the quality of medical practice is to be the best answer to the problems which confront the profession in connection with various governmental and social experiments that are being suggested.

10:00 End of Eighth General Assembly

Parking—Do not park your car on the street. Convention parking near the Civic Auditorium will be marked off with suitable sidewalk signs. The Grand Rapids Police Department will issue courtesy cards (at Registration Desk) for out-of-town autos which give parking privileges but do not apply to metered spaces. Nearby parking lots are available, as well as convenient indoor parking facilities. The indoor parking rates at the Pantlind Garage is 50c for 24 hours. Parking is free for 24 hours with one of the following services (a) car wash; (b) complete lubrication; (c) oil change; (d) purchase of 10 gallons of gasoline.

FRIDAY MORNING
September 22, 1939

Ninth General Assembly

Black and Silver Ballroom, Civic Auditorium

WM. E. BARSTOW, M.D., Presiding
L. FERNALD FOSTER, M.D., and IRA G. DOWNER, M.D., Secretaries

A. M.

9:30 "Recent Trends in the Investigation and Treatment of Sterility"

CARL P. HUBER, M.D., Indianapolis, Ind.



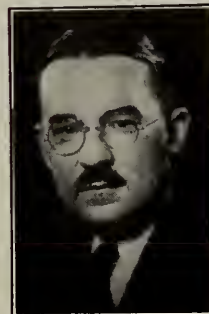
CARL P. HUBER

M.D., University of Michigan Medical School, 1928; member of Michigan Medical Faculty, Department of Obstetrics and Gynecology, until 1936; Consulting Obstetrician and Gynecologist, Chicago Lying-in Hospital and Instructor in Gynecology and Obstetrics, University of Chicago, 1936-38. At present, Assistant Professor of Obstetrics and Director of Research in Obstetrics and Gynecology, Indiana University, with active direction of Postgraduate education in Obstetrics under auspices of Indiana University, the Indiana State Medical Association and the State Board of Health.

The major causes of sterility are reviewed. A plan for investigation of the sterile couple is presented and illustrated. Emphasis is placed from the therapeutic standpoint upon the endocrine relationships essential for conception and continuation of pregnancy. The indications for hormone therapy are stressed and results with the gonadotropic hormone from pregnant mare serum are discussed.

10:00 "Diagnosis and Treatment of Carcinoma of the Colon and Rectum"

THOMAS E. JONES, M.D., Cleveland, O.



THOMAS E. JONES

M.D., Western Reserve University Medical School, 1916; Surgical Staff of The Cleveland Clinic since its inception in 1920.

Advancement in technical aids in the diagnosis of carcinoma of the colon in recent years have aided materially in early diagnosis. However, the interpretation of early clinical manifestations of this condition is likewise suffering from it. It has become too easy to say, "Have an X-ray," which frequently will not demonstrate an early lesion or it may be confused with other conditions. Clinical interpretation cannot be dispensed with. In the treatment, surgery is still the choice if there is no obvious metastasis or if the physical condition of the patient does not justify it. Types of operations are described, with special emphasis on the value of the combined abdominoperineal operation in carcinoma of the rectum.

10:30 INTERMISSION TO VIEW THE EXHIBITS

FRIDAY MORNING September 22, 1939

11:00 "Psychiatry in the Service of the Schools"

HENRY C. SCHUMACHER, M.D., Cleveland, O.



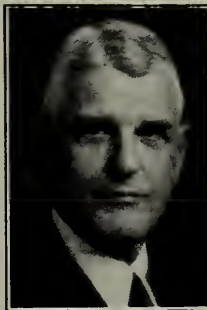
H. C. SCHUMACHER

Work, Phi Beta Pi, and Alpha Omega Alpha.

Many educational problems are the result of maladjustments of adults—parents and/or teachers—and child which are amenable to psychiatric treatment. This holds for causes that are commonly looked upon as somatic, such as sensory disturbances and nutritional lacks, as much as for those causes that might be subsumed under "conflict" and attempts at adjustment thereto. This paper will aid at showing that "problem behavior" involves the whole child in his total setting. And, furthermore, that such behavior is an index of poor health and hence a medical problem requiring for its solution sound medical training as well as knowledge of what certain auxiliary sciences can contribute to an appraisal of the total situation and to the treatment of certain of the underlying causes.

11:30 "Hygiene of Infancy and Childhood"

RICHARD M. SMITH, M.D., Boston, Mass.



RICHARD M. SMITH

First Two Years," "From Infancy to Childhood," numerous articles dealing chiefly with pediatrics in various medical journals.

Hygiene is the science of preserving health. The fact that most adults show some evidence of disease indicates that efforts to preserve health have not been successful in relation to the majority of individuals.

Hereditary, pre-natal and natal causes all influence health.

Provided an infant is born without handicaps, the physician may exercise a controlling influence upon his health. It is essential that physicians supervising children should be familiar with the normal growth and development pattern of the child and be cognizant of the factors which favor the progress of the orderly pattern and also of those factors which may cause unfavorable deviation.

Periodic health examinations furnish the opportunities for contact with the child and the education of the parents in child care.

Among the important factors determining health are food, daily routine, environment, psychological adjustments and prevention of disease.

M.D., St. Louis University School of Medicine, 1919; LL.D., St. Benedict's College, 1938. Diplomate American Board of Psychiatry and Neurology, 1939; Director Child Guidance Clinic, Cleveland, 1926 to present; Associate in Pediatrics, School of Medicine, Western Reserve University, 1933 to present; Fellow American Psychiatric Association, American Orthopsychiatric Association; member American Association for Advancement of Science, National Conference of Social

M.

12:00 "State Programs of Service for Crippled Children Under Social Security Act"

ROBERT C. HOOD, M.D., Washington, D. C.



ROBERT C. HOOD

he was given a Civil Service Appointment as Director of the Crippled Children's Division of the Children's Bureau, U. S. Department of Labor. Doctor Hood has immediate supervision of the administration of that part of the Social Security Act relating to Federal grants to the States to enable them to extend and improve their services for crippled children.

Services for crippled children under Title V, part 2, of the Social Security Act include provision for the location, diagnosis, hospitalization, medical and surgical treatment, and after-care for crippled children.

Federal funds are made available to the State in the form of grants-in-aid to official agencies established under State law, which administer the programs. At the present time, State plans are in operation in all of the States, Alaska, Hawaii, and the District of Columbia.

Details of administration and procedures will be discussed.

ACKNOWLEDGMENT: The Children's Fund of Michigan is sincerely thanked for its sponsorship of this lecture.

P. M.

12:30 End of Ninth General Assembly Luncheon—

HAVE YOU VISITED THE WONDERFUL EXHIBIT?

FRIDAY AFTERNOON September 22, 1939

Tenth General Assembly

Black and Silver Ballroom, Civic Auditorium

F. T. ANDREWS, M.D., Presiding

L. FERNALD FOSTER, M.D., and CLYDE K. HASLEY, M.D., Secretaries

1:30 "Recent Advances in the Diagnosis and Treatment of Thyroid Disease"

GEORGE CRILE, JR., M.D., Cleveland, O.



GEORGE CRILE, JR.

M.D., Johns Hopkins School of Medicine, 1916; in 1917 he was commissioned in the Medical Officers Reserve Corps of the Army and served two years in England and France, where he was promoted to rank of Captain. After the Armistice he studied pediatrics in England, following which he engaged in pediatric work in New York City and Cincinnati. Doctor Hood was engaged in private pediatric practice in Clarksburg, West Virginia, for thirteen years. In 1936,

M.D., Harvard Medical School, 1933; Fellow at Cleveland Clinic Foundation from 1934 to 1937; for six months during 1937 Resident in Gynecology at the Roosevelt Hospital, New York, and a member of the Surgical Staff at the Cleveland Clinic since November 1937.

All large goiters, all intrathoracic goiters, approximately 90 per cent of all malignant tumors of the thyroid, and 50 per cent of all cases of hyperthyroidism, are the end-result of iodine deficiency. The physiology of iodine deficiency and of the development of these

FRIDAY AFTERNOON

September 22, 1939

pathological changes is discussed. Clinical and laboratory methods for diagnosis of hyperthyroidism are evaluated. The necessity of individualizing the treatment of each patient with hyperthyroidism is emphasized, and it is pointed out that each group of cases presents special problems in the treatment of which special therapy should be used if the best results are to be obtained.

2:00 "The Prevention and Cure of Deformity and Disability after Poliomyelitis"

PHILIP LEWIN, M.D., Chicago, Ill.



PHILIP LEWIN

M.D., Rush Medical School, University of Chicago, 1911; Associate Professor of Orthopedic Surgery, Northwestern University Medical School; Attending Orthopedic Surgeon at Cook County Hospital and Michael Reese Hospital; Professor of Orthopedic Surgery, Cook County Graduate School of Medicine; Consulting Orthopedic Surgeon, Municipal Contagious Disease Hospital, Chicago; Member of the Committee on Prevention and Treatment of After-Effects, of

the National Foundation for Infantile Paralysis. The highlights of my paper include a discussion of the treatment of a patient with poliomyelitis from the moment the diagnosis is made or suspected until he is restored to his maximum physical condition. The discussion will include a résumé of orthopedic care of the patient in the home, in the farm house, in the contagious ward of a general hospital, in an orthopedic hospital. The general practitioner should know what can be accomplished by surgery, even if he isn't trained to do it, even if he doesn't want to do it, or the patients won't accept his advice. I shall include care during the acute stage and during the later stages. I shall discuss what to do when an epidemic is in progress, or is threatening, and what not to do. The paper will be illustrated with lantern slides. There will be ten minutes set aside for a question box. The visitors are encouraged to send up questions they would like to have discussed or answered.

ACKNOWLEDGMENT: The Michigan Crippled Children Commission is sincerely thanked for its sponsorship of this lecture.

2:30 INTERMISSION TO VIEW THE EXHIBITS

3:00 "Treatment of Pneumonia with Sulfapyridine and Specific Serum"

MAXWELL FINLAND, M.D., Boston, Mass.



MAXWELL FINLAND

Associate in Medicine, Harvard Medical School; Assistant Physician Thorndike Memorial Laboratory; Junior Visiting Physician, Boston City Hospital.

Data are presented to indicate that both specific serums and sulfapyridine are highly effective curative agents in the treatment of pneumonia. An attempt is made to indicate, as far as present data permit, the conditions under which each of these forms of treatment are most effective when used separately or in combination.

3:30 "The Present Medical and Surgical Status of the Chronic Gall Bladder"

WARREN H. COLE, M.D., Chicago, Ill.



WARREN H. COLE.

M.D., Washington University, School of Medicine, 1920. Spent one year in internal medicine in Baltimore and returned to St. Louis, where he became associated with the Department of Surgery at Washington University. Since September 1, 1936, he has been Professor of Surgery at the University of Illinois. He is the co-author of a book entitled "Diseases of the Gall Bladder and Bile Ducts," and another entitled "Textbook of General Surgery."

The first consideration in treatment of gall-bladder disease is correctness of diagnosis; the second deals with the problem as to whether operation is indicated. In diagnosis the most important feature is to eliminate other lesions, so many of which simulate cholecystitis. Cholecystography, gastro-intestinal x-ray series, gastric analysis and other laboratory aids will be helpful. Unfortunately medical treatment is relatively ineffectual in actually eliminating cholelithic disease, but has a very important role in the care of patients who have mild or infrequent attacks and who may not need cholecystectomy. Pre-operative and postoperative care including the use of vitamin K, the Wangenstein tube, etc., will be discussed.

4:00 "Coronary Disease, Including Angina Pectoris"

WM. D. STROUD, M.D., Philadelphia, Penna.



WM. D. STROUD

M.D., University of Pennsylvania, 1916; Honorary Surgeon to First Troop Philadelphia City Cavalry; Cardiologist to the Pennsylvania Hospital; Director of the Heart Station and Chief of the Adult and Children's Heart Clinics; Professor of Cardiology of the University of Pennsylvania Graduate School of Medicine; Consulting Cardiologist to the Graduate Hospital; President American Heart Association; Chairman of the Cardiac Clinics Committee;

Treasurer of the American College of Physicians and member of the Board of Regents and of the Executive Committee.

This subject is not only of importance because a high percentage of physicians die from its effects, but also since it is so often associated with hypertension. This triad, hypertension, coronary insufficiency and cardiac infarction includes, by far, the largest number of patients seen by the internist and general practitioner.

The possible reasons for the apparent steady increase in incidence of these cases and the possibilities of early diagnosis and reduction of factors which seem to contribute toward the progress of this pathological picture, will be reviewed. The pathological changes, physiological reactions and differential diagnosis, prognosis and treatment will be discussed, as well as the age and sex incidence, plus the apparent relationship between disease of the gastro-intestinal tract and gall bladder, which seems to be of importance. A number of cases suggesting the close association between gall bladder disease and coronary insufficiency with "angina of effort" will be reviewed.

Optimism by the physicians with reassurance are the two most important forms of treatment. Too often the physician frightens the patient for no good reason. A careful review of the home and business situation with possible readjustment is essential. Pharmacological and surgical methods of treatment will also be discussed.

4:30 End of Tenth General Assembly and the Convention

TECHNICAL EXHIBITS

Abbott Laboratories
North Chicago, Illinois



You will find a hearty welcome in the Abbott booth, where a comprehensive selection of leading specialties awaits your inspection.

Abbott trained representatives invite your questions and will gladly discuss the newer products with you.

A. S. Aloe Company
St. Louis, Missouri

Space No. C-12

The A. S. Aloe Company exhibit will include a complete line of physician's office equipment and instruments. Featured will be Aloe Steel treatment room furniture, with the new Irrigator Table, and the new Aloe Short Wave Unit. Aloe representatives E. E. Davis and A. A. Vaughan will be in attendance.

The Arlington Chemical Company
Yonkers, New York

Space No. D-12

The Arlington Chemical Co. will exhibit their entire line of pharmaceuticals and biological products. We believe the physicians will be especially interested in the \$1.00 diagnostic pollen outfits, a sample of which will be extended with our compliments, and also the recently issued \$9.75 diagnostic protein outfit containing approximately 1,500 tests. Our representatives will be very glad to discuss with physicians any of their allergic problems.

Bard-Parker Company
Danbury, Connecticut

Space No. F-15

Among the Bard-Parker products exhibited are Rib-Back Blades, Renewable Edge Stainless Steel Scissors, Lahey Lock Forceps, Formaldehyde Germicide and Containers for rustproof sterilization of surgical instruments, and Hematological Case for obtaining blood samples at the bedside.

Barnett Laboratories
Chicago, Illinois

Space No. A-4

The Barnett Laboratories is featuring clinical photographic equipment. Their synchronized lighting arrangement is adaptable to popular cameras such as the Leica, Contax, Perfex, Korelle Reflex, Graflex, etc. Focusing attachments for the Perfex, Leica and Contax cameras, allowing them to be used for copying and photo-microscopy will also be shown. A reduced eye demonstrating the manner in which light rays focus upon retinas of myopic, emmetropic and hyperopic individuals will be demonstrated.

Barry Allergy Laboratory Inc.
Detroit, Michigan

Space No. F-5

The Barry Allergy Laboratory will exhibit the most recent developments in testing and treatment materials for the management of the allergic patient, particularly from the general practitioner standpoint. Services and materials and the methods of preparation, based on the individual patient's history and reactions, will also be demonstrated. Specialized services for hospitals, clinics, and specialists will be described.

Space No. B-13

W. A. Baum Co. Inc.
New York, New York



W. A. Baum Co. Inc. will show for the first time in Michigan the new STANDBY Model Life-time Baumanometer. Routine office blood pressure readings are greatly simplified by this new office Model. Standing on the floor, it is 38½" high. Made of die cast magnesium (Dow Metal), it weighs only 6½ pounds. The STANDBY Model is practical and pleasing in design and proportion and possesses other new and original features.

Becton, Dickinson & Co.
Rutherford, New Jersey

Space No. E-18

Becton, Dickinson & Company will exhibit a full line of all glass syringes, rustless steel needles, Asepto syringes, thermometers, Ace bandages and diagnostic instruments. The attendants at the booth will be competent to answer questions regarding use, care, sterilization and standardization of all items and will be happy to discuss problems pertaining to the instruments at any time.

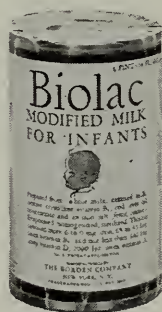
Boericke & Tafel
Chicago, Illinois

Space No. F-3

The Exhibit of Boericke & Tafel, under supervision of their genial representative, Mr. Frank B. Monroe of Battle Creek, is featuring Concentrated Liver Extract (oral) for pernicious anemia. Their display of Pharmaceuticals and books is captioned under the unique slogan "Over a Century of Service."

The Borden Company
New York, New York

Space No. F-19



New, yet already remarkably successful in infant feeding, BIOLAC is exhibited for the first time in Michigan at the Borden Booth. Competent representatives will gladly provide specific, helpful information on the unique virtues of this liquid modified milk.

Also exhibited are other Borden products, notably Dryco, Special Dryco, Klim, Beta Lactose, Merrell-Soule Products and Borden's Irradiated Evaporated Milks.

The Burrows Company
Chicago, Illinois

Space No. D-20

The Burrows Company will display the electric Suction and Ether Unit, Superior Electric Breast Pump, the Dud-O-Vac, an automatic siphon suction apparatus, and many other special items interesting to the medical profession.

We trust we may have the pleasure of a visit from you.

Cameron Surgical Specialty Co.
Chicago, Illinois

Space No. A-6

See the new improved Cameron Electro-Diagnostoset, the portable Color-Flash Clinical

Camera, the combination Projectoray Diagnostic & Operating Lamp and Projector, the office model Radio-Frequency Cauteradio, and the heavy-duty Cauterodynes for all phases of electro-surgery and electro-coagulation.

S. H. Camp & Company **Space No. B-2**
Jackson, Michigan



Representatives of S. H. Camp and Company will be in attendance at Booth B-2 to discuss their complete line of physiological supports. Anatomical supports for prenatal, postnatal, ptosis, hernia and orthopedic conditions will be shown. There are new, additional, useful ideas in design together with improved phases of construction that will interest you.

Coca-Cola Company **Space No. F-12**
Atlanta, Georgia

Coca-Cola will be served to the physicians with the compliments of the Coca-Cola Company.

Cottrell-Clarke Inc. **Space No. F-18**
Detroit, Michigan

As stationers and printers to the medical profession for over thirty-eight years, the Detroit house of Cottrell-Clarke, Inc., has evolved many interesting developments for better and more efficient case record keeping. Several items in particular will be shown for the first time at this year's exhibit.

R. B. Davis Company **Space No. F-20**
Hoboken, New Jersey



Enjoy a drink of delicious Cocomalt at the R. B. Davis Co. Booth. Cocomalt is refreshing, nourishing and of the highest quality. It has a rich content of Vitamins A, B₁, and D, Calcium and Phosphorus to aid in the development of strong bones and sound teeth; Iron for blood; Protein for strength and muscle; Carbohydrate for energy.

Dazor Manufacturing Corp. **Space No. B-6**
St. Louis, Missouri

See the Dazor Floating Lamp—A touch actually floats it to any position! And, then it stays in that position! It's the only light on the market that achieves the perfect position for gynecological and rectal work—a perfect lamp for the general practitioner.

Detroit Creamery Company **Spaces No. E-16-17**
Detroit, Michigan

This exhibit will represent the Sealtest Laboratory System which includes the Detroit Creamery, Ebling Creamery, Grand Rapids Creamery, Ann Arbor Dairy, and the Arctic Dairy. The Sealtest system of laboratory control will be stressed. There will be charts, photographs, and designs showing the processing of the milk from farm to doorstep. Be sure to see the new Homogenized, Vitamin D Milk!

Detroit First Aid Company **Space No. A-7**
Detroit, Michigan

Mollo-pedic Shoes solve the problem of foot covering when bulky bandage or cast forbids the use of ordinary shoes. They are made of soft fabric with sponge rubber soles. Patented lacing permits adjustment to any bandage or cast.

Mollo-pedic shoes are available in four sizes, at leading surgical supply dealers.

Detroit X-Ray Sales Co.
Detroit, Michigan

Space No. B-11

The Detroit X-Ray Sales Company takes pleasure in again exhibiting late developments in the X-ray field by the F. Mattern Manufacturing Company, of Chicago. They will show two new Units, which were demonstrated for the first time at the A.M.A. at St. Louis, and caused wide-spread comment and enthusiasm. A cordial invitation is extended to Members of the Society to visit their booth, and witness demonstration.

Dictaphone Corporation
New York, New York

Space No. A-9



The Dictaphone Corporation cordially invites you to inspect its display of Dictaphone equipment and to discuss its application in the Medical Profession with those in

attendance. Our Dictaphone Dictating Machine with Nuphonic Recording, Transcribing Machine with Nuphonic Reproduction, together with S-12 Shaving Machine will be on demonstration.

Dietene Company
Minneapolis, Minnesota

Space No. B-14



Dietene—council-accepted for use when reducing. A single food low in calories, rich in protein, minerals, and vitamins. Patients co-operate on the Dietene regime, because Dietene meals are satisfying, easy to prepare, and economical. You are invited to stop at Booth B-14 and sample this delicious, low calorie food.

Duke Laboratories, Inc.
Stamford, Connecticut

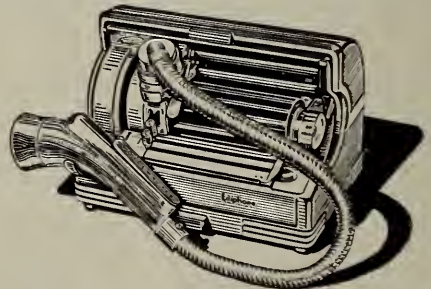
Space No. B-3

Duke Laboratories, Inc., specialize in the Manufacture of elastic adhesive plasters. The representatives in charge will be glad to demonstrate Elastoplast, the original elastic adhesive plaster bandage, and Medioplast, the ready-for-use emergency dressing. Be sure to get a supply of Nivea, the surgeon's hand creme and superfatted Basis Soap, the detergent for tender, irritated skin.

The Ediphone Co.
Lansing, Michigan

Space No. E-7

The Ediphone Voicewriter fills a special need of physicians—office and hospital use—for



prompt and accurate record of case histories. Because of instant availability, histories can

be dictated immediately after examination in considerable less time than required under shorthand. Thomas A. Edison, Inc., manufacturers of the Ediphone, recently introduced a new Desk model. Placed on the desk, it is ready at all hours to handle office routine.

The Evans-Sherratt Company Space No. A-6
Detroit, Michigan

H. G. Fischer & Co. Space No. F-4
Chicago, Illinois



H. G. Fischer & Co. 1939 models of x-ray and short wave apparatus are so distinctive, both in improved performance and in various instances greatly lowered price, that every physician should consider inspection a convention obligation.

The complete H. G. Fischer & Co. line includes shockproof x-ray apparatus, short wave units, combination cabinets, galvanic and wave generators, ultra violet and infra red lamps and many other units, accessories and supplies. Physicians attending the convention are invited to ask for demonstrations of apparatus in which they are interested and to consult with Fischer representatives regarding technics made available by Fischer apparatus.

General Electric X-Ray Corporation Space No. F-11
Detroit, Michigan



We cordially invite the physicians and their wives who attend this meeting to make use of the lounge facilities provided at our booth for their comfort. We particularly look forward to a visit from our customers and invite all physicians who may have

technical problems, to discuss them with our Staff in attendance. For those who are interested, we would welcome the opportunity to tell you of our contribution in new and improved physiotherapy and x-ray equipment since the 1938 State Meeting.

Gerber Products Company Space No. E-11
Fremont, Michigan



The new Gerber's Cereal Food will be shown at Gerber's booth. Samples and professional literature about this Cereal product as well as the other Gerber Baby Foods will be sent to registrants at the booth.

Hack Shoe Company Space No. B-16
Detroit, Michigan

Hack Shoe Company, "Shoe Therapists to the Profession," shoes for normal and abnormal feet. Football, basketball, bowling and other athletic shoes with Hack's patented "Tri-Bal-

ance" supportive features will be exhibited. Also shown, Hack Shoes for Children: Thomas heels and long medial counter extensions. Hack-O-Pedic Clubfoot Shoes complete the exhibit.

Hanovia Chemical & Mfg. Co. Space No. B-15
Newark, New Jersey

The very latest in ultraviolet equipment will be demonstrated, including the outstanding uses of ultraviolet radiation in the fields of science, medicine and public health. Don't fail to see our new line of self-lighting ultraviolet high-pressure mercury arc lamps, Short and Ultra Short wave apparatus, Sollux Radiant Heat Lamps and our latest development, quartz ultraviolet lamps for air sanitation.

J. F. Hartz Co. Spaces No. F-7-8
Detroit, Michigan

Equipment, apparatus, pharmaceutical materials to assist the profession in "Keeping pace with modern medicine" will be displayed at the convention. Be sure to see a demonstration of the Hartz-o-therm, a portable shortwave diathermy which does surgery and sells for only \$157.50. The Hartz Company looks forward to meeting you.

H. J. Heinz Company Space No. E-2
Pittsburgh, Pennsylvania



Heinz Junior Foods, a new variety for older babies, is on display. The Heinz representative is ready to assist you to inspect this new product, as well as the Heinz Strained Foods also on display.

Register at the Heinz booth for helpful information.

Holland-Rantos Company, Inc. Space No. B-10
New York, New York



A motion picture demonstration of modern contraception technic will be the feature at the Holland-Rantos booth, together with the display of their products, the Koromex diaphragm and jelly and their new-

er items, the H-R Emulsion jelly and the diaphragm introducer. Please be sure to call and get your complimentary copy of the Physicians' Guide, a valuable manual for the physicians interested in the contraceptive technic.

Horlick's Malted Milk Corporation Space No. D-6
Racine, Wisconsin



Nourishing, digestible, appetizing—these are the three outstanding qualities for which HORLICK'S is famous, whether in powder or tablet form. Visit the exhibit in Booth No. D-6. You will be interested in the many uses from infant feeding to old age—note especially the convenience of the Tablets in ulcer diets.

The G. A. Ingram Co.
Detroit, Michigan

Spaces No. D-1-2-3



The Ingram Company's display at our coming Convention will be very complete and interesting to all. It will include a complete line of both wood and metal furniture, the latest developments in electrical equipment, as well as complete lines of stainless steel instruments of American and Swedish manufacture.

They will show the Syfogen outfit—a nasal therapy unit effective in the treatment of sinus infection, catarrhal deafness, and other stubborn defects of the nose, throat, and ears. Note how easily the unit operates.

Jones Metabolism Equipment Co.
Chicago, Illinois

Space No. C-18

The Jones Metabolism Equipment Company will feature as their display the Jones MOTOR BASAL metabolism apparatus.

A special feature of this unit is that it contains no water and requires no calculation in the determination of the basal metabolic rate.

The Jones Surgical Supply Co. Space No. F-1
Cleveland, Ohio

The Jones Surgical Supply Co. will again display at the Annual Michigan State Medical Meeting. The display will consist of surgical instruments, pharmaceutical specialties, and the new modern General Automatic Short Wave apparatus. The display will be attended by Mr. Max Warren of Owosso, Michigan, and Mr. L. G. (Jack) Voorhees of Cleveland, Ohio.

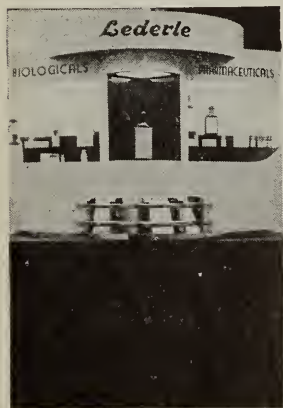
A. Kuhlman & Co.
Detroit, Michigan

Space No. C-3

A. Kuhlman & Company, the oldest surgical supply house in Michigan, will show selected surgical instruments for the general practitioner and specialist, including several new items for the urologists and the Johnston Modified Miller Abbott Tube for intestinal intubation, also the new ice and water bag for sinus application.

Lederle Laboratories, Inc.
New York, New York

Space No. B-8



The Lederle Laboratories, Inc., will exhibit their line of Specific Antipneumococcic Sera for all types of Pneumococcus Pneumonias. Also on display will be serum's newest ally, the drug Sulfapyridine, in capsules and tablets. All other biologicals and pharmaceuticals, including Poison Ivy Extract, Solution Liver Extract and other specialties, will be exhibited. Competent representatives will be in charge.

Lea & Febiger
Philadelphia, Pennsylvania

Space No. F-13

Lea & Febiger will display among their new works Haden's Hematology, Stimson's Fractures and Dislocations, Spaeth's Ophthalmic Surgery, Witherspoon's Clinical Pathological Gynecology, DeGaris, Lachmann and Chase's Human Anatomy, Smith's Heart Patients. New editions will be shown of Fishberg's Hypertension and Nephritis, Prinz and Greenbaum's Diseases of the Mouth and Their Treatment, Brown's Oral Surgery, Musser's Internal Medicine, Stone's New-Born Infant, Levine's Otolaryngology and others.

Libby, McNeill & Libby
Chicago, Illinois

Space No. C-5



Libby, McNeill & Libby, Chicago, extends a cordial invitation to all physicians to visit the Libby Homogenized Baby Foods display. This exhibit graphically illustrates why fruits and vegetables in finely divided form, such as these Homogenized Foods, are well tolerated by infants as young as one or two months of age. We will appreciate your

registering for literature and samples of these Homogenized Baby Foods.

Liebel-Flarsheim
Cincinnati, Ohio

Space No. C-6

Liebel-Flarsheim, Cincinnati, Ohio, will exhibit the well-known L-F Short Wave Generators as well as the famous Bovie Electro-Surgical Units. In addition, other new and useful physiotherapy apparatus will be shown. A cordial invitation is extended to visit the Liebel-Flarsheim booth to inspect this new apparatus and have it demonstrated to you.

Eli Lilly and Company
Indianapolis, Indiana

Space No. B-4

Eli Lilly and Company feature an exhibit stressing the importance of liver extract in the treatment of pernicious anemia; "Merthiolate" (Sodium Ethyl Mercuri Thiosalicylate, Lilly) in the surgical and germicidal fields; "Sodium Amytal" (Sodium Iso-amyl Ethyl Barbiturate, Lilly) in the field of hypnotics; and Iletin (Insulin, Lilly) in the management of diabetes mellitus. This is the first appearance of the Lilly Research Laboratories at the meeting of the Michigan State Medical Society and the exhibit unit has been specially designed for state medical meetings.

J. B. Lippincott Company
Philadelphia, Pennsylvania

Space No. E-1



Fair Medical Exhibit. Other important new works include: Rigler's "Outline of Roentgen Diagnosis," Barborka's "Treatment by Diet" and Imperatori's "Diseases of the Nose and Throat."

Among the newer Lippincott publications on display will be the phenomenally successful Thorak's "Modern Surgical Technic" and Kracke's "Diseases of the Blood and Atlas of Hematology," from which illustrations are being displayed at the World's

M & R Dietetic Laboratories Inc.
Columbus, Ohio **Space No. F-14**
M & R Dietetic Laboratories, Inc., will display Similac and powdered SofKurd. Representatives will be glad to discuss the merits and suggested application of these products.

Mead Johnson & Company **Spaces No. C-1-2**
Evansville, Indiana
Three new Mead products are on display at Mead Johnson & Company's booths: Mead's Thiamin Chloride Tablets; Mead's Cevitamic (Ascorbic) Acid Tablets; Mead's Nicotinic Acid Tablets.

Medical Arts Surgical Supply Co.
Grand Rapids, Michigan **Spaces No. C-7-8-9**
The Medical Arts Surgical Supply Company will show the office of tomorrow featuring the latest in Hamilton furniture and some of Grand Rapids-made desks and chairs. They also will feature the Liebel-Flarsheim Short Wave and Davis Bovie cutting units, along with a full line of stainless steel instruments, suction machines, metabolism outfits, and various other equipment for the modern office.

Medical Case History Bureau **Space No. E-19**
New York, New York
The Medical Case History Bureau will feature a patient's history record system which is endorsed and used by many of the foremost physicians. The history charts are printed in all sizes and outlines especially suited for the various branches of medicine and also general practice. One of the many advantages of the system is the limitless space for the history and the simple method of cross-indexing the diagnosis of interesting cases. The bookkeeping cards are efficient and simple to use.

The Medical Protective Company
Wheaton, Illinois **Space No. C-21**
The most exacting requirements of adequate liability protection are those of the professional liability field. The Medical Protective Company, specialists in providing protection for professional men, invites you to confer, at their exhibit, with the representative there. He is thoroughly trained in Professional Liability underwriting.

Medical Supply Corp. of Detroit **Space No. E-3**
Detroit, Michigan

An opportunity to examine "tomorrow's medical equipment today" will be afforded Michigan physicians at the Medical Supply Corporation booth. Featured will be the Lepel Short Wave Machines, Lepel Sinusoidal Machines, Lepel Ultra Violet Lamps, Sklar Rotary Suction Pumps, and a Pandora Bag Display. In attendance to serve the doctor will be Mr. F. A. Janusch, P. T. Sawyer, and H. A. Berg. Be sure to visit Booth E-3.

The Mennen Company **Space No. D-21**
Newark, New Jersey
The Mennen Company will exhibit their two baby products—Antiseptic Oil and Antiseptic Borated Powder. The Antiseptic Oil is now being used routinely by more than 90% of the hospitals that are important in maternity work. Be sure to register at the Mennen exhibit and receive your kit containing demonstration sizes of their shaving and after-shave products; also,

for the lucky number prize drawing to be held at the close of the Convention for DeLuxe Fitted Leather Toilet Kits.

Merck & Co., Inc. **Space No. C-20**
Rahway, New Jersey

Sulfapyridine Merck (introduced as "Dagenan," "M. & B. 693") will be on exhibit in the Merck booth. A chart giving the gross mortality in 2,662 cases of pneumococcic pneumonia, and also the mortality rate with the individual types of the pneumococcus, will be displayed. Literature will be available giving detailed information on the administration of Sulfapyridine Merck and the cautions to be exercised in its use.

The Wm. S. Merrell Co. **Space No. D-11**
Cincinnati, Ohio



Among therapeutic agents to be displayed at the Merrell booth will be Catarrhal Oravax, an effective catarrhal vaccine prepared in enteric coated tablets for oral administration. Representatives will have clinical reports to show interested physicians.

Michigan Magnetic Mineral Water Company **Space No. F-6**
St. Louis, Michigan



Natural Ray Mineral Water from the Magnetic Spring at St. Louis, Michigan, discovered in 1869. Bottled and sealed at the spring. A palatable mineral water that compares favorably with the water of leading European mineral springs. Served free at the exhibitor's booth.

The C. V. Mosby Company **Space No. F-21**
St. Louis, Missouri

The C. V. Mosby Company will display the following books just off the press: "Varicose Veins" by Ochsner and Mahorner; "Operative Orthopedics" by Willis C. Campbell; "Positioning in Radiography" by K. C. Clark; "Atlas of Radiographs" by A. P. Bertwistle; "Clinical Gastroenterology" by H. W. Soper; "Diseases of the Skin" by Sutton and Sutton; "The Practice of Allergy" by W. T. Vaughan; and "Life and Letters of Dr. William Beaumont" by Jesse Myer. Nearly two hundred other titles will also be shown.

The Muller Laboratories **Space No. C-19**
Baltimore, Maryland



Mull-Soy will be shown. This is a soy bean milk-substitute in concentrated fluid form, valuable in the diets of those patients who are allergic to cow's milk. It is palatable, nutritious, simple to prepare, and

Council Accepted.

Parke, Davis & Company
Detroit, Michigan



Members of the staff of Parke, Davis & Company will be at your service to tell you about some of their Research Staff's numerous scientific accomplishments. Mapharsen, Adrenalin, Pitocin, Pitresin, Theelin, Theelol, and biological products will be a part of this attractive exhibit.

Pelton & Crane Company
Detroit, Michigan

Spaces No. C-13-14-15

See the new high-intensity, no-heat surgical light just announced by Pelton & Crane. Also a full line of Pelton Sterilizers, including the new "pocketsize" 6" by 12" automatic autoclave. Mr. C. K. Vaughan will be in charge to answer any questions.

Pet Milk Sales Corp.
St. Louis, Missouri

Space No. E-10



An actual working model of a milk condensing plant in miniature will be exhibited by the Pet Milk Company. This exhibit offers an opportunity to obtain information about the production of Irradiated Pet Milk and its uses in infant feeding and general dietary practice. Miniature Pet Milk cans will be given to each physician who visits the Pet Milk Booth.

Petrolagar Laboratories
Chicago, Illinois

Space No. E-9



Petrolagar Laboratories, Inc., offer, in addition to samples of the Five Types of Petrolagar, an interesting selection of descriptive literature and anatomical charts. Ask the Petrolagar representative, Mr. R. J. Corkey or Mr. L. F. Harrison, to show you the new HABIT TIME booklet. It's a welcome aid for teaching bowel regularity to your patients.

Philip Morris & Co. Ltd., Inc.
New York, New York

Space No. F-10

Philip Morris & Company will demonstrate the method by which it was found that Philip Morris Cigarettes, in which diethylene glycol is used as the hygroscopic agent, are less irritating than other cigarettes. Their representative will be happy to discuss researches on this subject, and problems on the physiological effects of smoking.

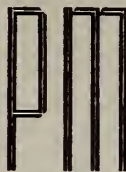
Physicians Equipment Exchange
Detroit, Michigan

Space No. F-16

This year again the Physicians Equipment Exchange will meet its many medical friends with an entirely new display. Featured will be our smart A. W. Cotton Company Walnut furniture at a price that will invite comparison. The furniture is practical, economical, attractive and satisfactory in every respect. Also there will be numerous other pieces of equipment which will be of interest. We invite you to stop for a moment. The time spent will be well worth while.

Professional Management
Battle Creek, Michigan

Space No. A-3



Henry C. Black and Allison E. Skaggs cordially invite the doctors of Michigan to stop at their booth. Financial Records, Case Records, Budgets, Collection Management, and Business Counsel are all parts of Professional Management's regular service. Reprints from the Michigan State Medical Journal will emphasize the Planning of an Estate.

Ralston Purina Company, Inc.
St. Louis, Missouri

Space No. C-17



Low Calorie Diets, and Wheat, Egg and Milk-free Diet Lists are displayed in the Ralston Purina Co. booth. Physicians are invited to register for Allergy and Low Calorie Diets, and samples of Ry-Krisp, the whole rye wafer. Ralston Whole Wheat Cereal and literature of especial interest to pediatricians and general practitioners also available.

Randolph Surgical Supply Co.
Detroit, Michigan

Space No. A-10

Randolph Surgical Supply Company will again display the ultimate in modern Doctors' office equipment.

A feature of our exhibit will be the most modern type of examining room tables and treatment stands.

Also on display will be the latest diagnostic instruments including many new innovations.

E. J. Rose Manufacturing Co., Inc.
Detroit, Michigan

Space No. B-9

E. J. Rose Mfg. Co. displays a complete line of physiotherapy equipment; featuring the new Full Spectrum Cold Quartz Ultra Violet Generator and Variable Short Wave in choice of four wave lengths in one unit. They also show a new development in Short Wave therapy, utilizing the principle of a Directional Radio Beam.

S. M. A. Corporation
Chicago, Illinois

Space No. E-8



Among the technical exhibits at the convention this year is an interesting new display, which represents the selection of infant feeding and vitamin products of the S. M. A. Corporation. Physicians who visit this exhibit may obtain complete information, as well as samples, of S. M. A. Powder and the special milk preparation—Protein S. M. S. (Acidulated), Alerdex and Hypo-Allergic Milk.

W. B. Saunders Company
Philadelphia, Pennsylvania

Space No. A-2

These publishers will exhibit a complete line of their books. Of particular interest to the profession are many new books and new editions, including the new (2nd) edition of Christopher's "Surgery," Wiener and Alvis "Surgery of the Eye," McNally's "Medical Jurisprudence and Toxicology," new (4th) edition of Wechsler's "Clinical Neurology," new (2nd) edition of Noyes' "Psychiatry," new (9th) edition of Todd and Sanford's "Laboratory Diagnosis," Hauser's "Diseases of the

Foot," new (2nd) edition of Callander's "Surgical Anatomy," the new (11th) edition of Scudder's "Fractures," Cutler's new book on "Cancer," and Morrison's new work on "Nose, Throat and Ear."

Schering Corporation
Bloomfield, New Jersey

Space No. D-5



Representatives of the Schering Corporation, leaders in the development and production of scientific and pure sex hormone preparations, will be pleased to receive members of the medical profession. Latest information will be available on the clinical use of the estrogen preparations, PROGYNON-B and PROGYNON-DH; the corpus luteum hormone preparation, PROLUTON; and the male sex hormone preparation, ORETON.

Scientific Sugars Co.
Columbus, Indiana

Space No. F-17

Cartose and Kinney's Yeast Extract (Vitamin B Complex), and other preparations interesting to the physician will be shown at Scientific Sugars Company booth. Physicians are cordially invited to inspect this display.

Sharp & Dohme
Philadelphia, Pennsylvania

Space No. A-8



Sharp & Dohme have a new modern display this year, featuring their well-known Propadrine Hydrochloride Products. There will also be on display a group of pharmaceutical specialties and biologicals prepared by this house. Capable, well informed representatives will be on hand to welcome physicians and furnish information on Sharp & Dohme products.

Smith, Kline & French Laboratories
Philadelphia, Pennsylvania

Space No. B-7



Smith, Kline & French Laboratories invite physicians to stop and obtain complimentary samples of "Benzedrine Inhaler." The representative will be glad to answer questions about "Benzedrine Sulfate Tablets," "Benzedrine Solution" and Pentnucleotide. Physicians may help

themselves from convenient literature dispensers without the bother of leaving their names. They will not be solicited to register.

C. M. Sorensen Co., Inc.
Long Island City, New York

Space No. A-1

Your visit to the C. M. Sorensen Co. booth is respectfully invited, to inspect several new models of office treatment suction and pressure outfits for ear, nose and throat work. A wide range of combinations and prices to suit every need and purpose has been made available.

Frederick Stearns & Company
Detroit, Michigan

Spaces No. C-10-11

It will be a real pleasure to welcome all our old friends at the Frederick Stearns and Company exhibit.

Our professional representative will gladly supply all possible information on Neo-Synephrin in all its various dosage forms. Mucilose, Appella Apple Powder, Stearns Solution Zinc-

Insulin Crystals, and other newly developed products.

You are cordially invited.

E. R. Squibb & Sons
New York, New York

Space No. D-4



Physicians attending the Michigan State Medical Society Meeting are cordially invited to visit the Squibb Exhibit. The complete line of Squibb Vitamin, Glandular, Arsenical and Biological Products and Specialties, as well as a number of interesting new items, will be featured.

Well informed Squibb Representatives will be on hand to welcome you and to furnish any information desired on the products displayed.

James Vernor Company
Detroit, Michigan

Space No. C-4



In keeping with the slogan "A Preferred Beverage for Home and Hospital" Vernor's will display their products and be prepared to

serve Ginger Ale—HOT or COLD.

The exhibit will be educational and literature of interest to the Medical Profession will be available.

Wall Chemicals Corporation
Detroit, Michigan

Space No. B-5

Wall Chemical Corporation, a division of the Liquid Carbonic Corporation, will have on display a quantity of compressed gas anesthetics and resuscitants. There will also be a complete line of oxygen therapy equipment including the "Walco" oxygen humidifier, for the nasal administration of oxygen, and the "Walco" oxygen face mask.

U. S. Standard Products Company
Woodworth, Wisconsin

Space No. D-13

U. S. Standard Products Company will exhibit their products at the Michigan State Medical Meeting in September.

Physicians are invited to visit our booth, meet our Michigan representatives and get acquainted with our line of biologicals, ampules, glandular preparations and specialties. There will be displayed new products which will be of interest to physicians.

Westinghouse X-Ray Company, Inc.

Long Island City, New York

Space No. C-16

The Westinghouse X-Ray Company, Inc., is exhibiting a small X-Ray unit suitable for use in a doctor's office or small hospital. It provides facilities for both radiography and fluoroscopy, while being compact and popularly priced. Latest design physical therapy equipment and operating-room lights are included.

Winthrop Chemical Co.
New York, New York

Space No. D-10

Winthrop Chemical Company, Inc. extends a cordial invitation to every member of the Michigan State Medical Society to visit their booth where representatives will gladly discuss the latest preparations made available by this firm. You will receive valuable booklets dealing with

anesthetics, analgesics, antirachitics, antispasmodics, antisypilitics, diagnostics, diuretics, hypnotics, sedatives and vasodilators.

John Wyeth & Brother, Inc.

Philadelphia, Pennsylvania Spaces No. C-22-23

Among the John Wyeth & Brother specialties will be: Amphojel, the modern treatment for hyperacidities and peptic ulcer; Kaomagma, the absorbent medication for diarrhea and intestinal disorders; Silver Picrate, in powder and suppository form for trichomonas vaginitis; Mucara for intestinal stasis; and Bewon Elixir, indicated for appetite stimulation.

**The Zemmer Company
Pittsburgh, Pennsylvania**

Space No. F-2



The Zemmer Company will display a number of their leading pharmaceutical products, also distribute samples to members of the medical profession.

A cordial invitation is extended to members of the medical profession to visit Exhibit No. F-2.

**Zimmer Manufacturing Co.
Warsaw, Indiana**

Space No. B-1



The Zimmer Manufacturing Company are exhibiting a full line of Fracture Equipment. We especially wish to call your attention to the improved bone instruments which will be on display. The new bone saw is very unique, inexpensive and outstanding in its simplicity. Demonstrations of this instrument will gladly be given

at any time by representatives in charge of the booth.

Technical Exhibits open daily at 8:30 A. M. and close at 6:00 P. M. with the exception of Friday, when the technical exhibits will close at 3:00 P. M. Intermissions to view the exhibits have been arranged during the morning and afternoon General Assemblies.

Please Register at Each Booth.

* * *

Golf Tournament—Sunday, September 17, 1939, beginning at 1:00 P. M. at beautiful Blythefield Country Club. Plan to participate in this 18 hole tournament and win a prize. Competition open to all members of the Michigan State Medical Society with scores from 60 to 260! Banquet and presentation of prizes will climax the day.

* * *

Guest Golf—The Kent County Medical Society has arranged that M.S.M.S. members may play at all country clubs of Grand Rapids upon presentation of M.S.M.S. membership card and payment of greens fees.

* * *

Save an Order for the M.S.M.S. Exhibitor.

**ANNUAL REPORT OF THE M.S.M.S.
DELEGATES TO A.M.A., 1939**

The House of Delegates of the ninetieth annual session of the American Medical Association met in St. Louis, May 15 to 18, 1939.

It might be well, at this time, to call attention to the House of Delegates as an organization. The House of Delegates is made up of 174 representatives of the various states, territorial groups, army, navy, and the public health services, of the United States. Perhaps, no other group is as typically representative of traditional America. These members have been selected from the component organizations by reason of their interest in organizational activities, their academic training, and their administrative activities. The length of time that each individual has spent in the practice of medicine will average well over twenty-five years. On the basis of this, 4,350 years of medical service is represented. The Speaker of the House, Dr. H. H. Shoulders of Nashville, Tennessee, in his address, made the following statements:

"It must be remembered that this body is composed of 174 delegates, representing the medical profession in every state in this Union, including Alaska, Hawaii, the Panama Canal Zone, the Philippine Islands and Puerto Rico. You are so widely scattered that there is little opportunity for contact with one another in the interim between sessions. A wide variety of local conditions obtain in the areas represented. Every possible shade of opinion and every possible local interest, both personal and professional, are represented. You are democratic in concept, composition and conduct.

"The House is in session for a few hours each day for not more than three days as a rule. A relatively small amount of time is available for deliberation and debate. No ready reference library is at hand. Almost every session of the House has been called on to consider and act on issues of vital importance, not only to the medical profession but to the people of this country as a whole.

"Notwithstanding all these conditions, one finds in the Proceedings of the House a golden thread of consistency which runs straight through all the actions taken on all issues presented, which in any way touch the fundamental principles to which you have given allegiance. It would be natural, under the circumstances, for errors to occur and for actions taken in one session to be in conflict with those taken in another session one or many years before. Yet, this has not occurred."

All of the Michigan Delegates were present, throughout the entire session. The consideration that the Speaker of the House has for Michigan Delegates is shown in the fact that every Michigan Delegate was assigned an important position, during the session.

The public, the medical profession and official Washington were anxiously awaiting the answer of the House of Delegates to the Wagner Health Bill.

The answer of the Reference Committee upon the Wagner Bill can be summarized in one word and that word is "NO." This word "No" was embellished with convincing argument, masterful logic and scathing analysis.

This was probably the first time in the history of the organization that lay groups have appeared before a committee of the House of Delegates and indorsed and supported the action of a committee.

The representative on the Committee from Michigan would at this point like to express the appreciation of the Committee for the contributions

JOUR. M.S.M.S.

of these groups against the attempts to socialize the practice of medicine.

Special attention is called to the Reference Committee on Constitution and By-Laws and also the Reference Committee on Legislation and Public Relations. To these particular committees it so happened were referred all controversial subjects. To the Reference Committee on Amendments to the Constitution and By-Laws, of which Charles E. Mongan of Massachusetts was chairman, was referred the resolution regarding amending of the principles of medical ethics; the resolution on the exhibition of medical or surgical procedures to lay groups; the resolution proposing amendments to the by-laws governing Amendments and By-Laws; the resolution regarding the Council on Medical Education and Hospitals; and the resolution on the prescribing of radium. The matter of amending the principles of medical ethics was considered carefully and it was decided that this was a matter for the Judicial Council to determine rather than a resolution from the floor of the House of Delegates.

The resolution on the exhibition of medical and surgical procedures to lay groups which had to do with exhibiting, principally, moving picture films of various medical or operative procedures to lay groups, was not considered a favorable subject for legislation so far as the House of Delegates was concerned. It was felt that the local county or state medical societies could handle this to suit themselves.

The resolution regarding the amending of the Constitution and By-Laws governing the Council of Medical Education and Hospitals was considered carefully. It was felt that the old set-up, so far as the Council of Medical Education and Hospitals was concerned, was adequate; in fact it was felt by the Committee that this council had carried on a very fine job. This idea of the Committee, however, was overruled by the House of Delegates and the matter returned to the Committee for further consideration. The Committee reported the matter favorably with the proviso that three persons should be nominated for each position by the Board of Trustees and the House of Delegates should elect by ballot one of the three for the position. This was a highly controversial subject and amendments were made from the floor of the House which would have given the entire power of appointing this Committee to the Board of Trustees. However, the amendment was overruled and the recommendation of the Committee adopted.

The subject matter of the resolution on the prescribing of radium was highly controversial. The final determination was that the present ideas regarding the ethics involved should obtain, namely, that long distance prescribing for the use of radium or any other medicament was unethical and reiterated the language of report of this same Committee of 1938 which read as follows: "After due consideration of the matter your Committee feels that the phraseology should remain. Any exception to the general principles involved does defeat the purpose."

The Reference Committee on Legislation and Public Relations had many resolutions of interest to the private physician referred. The report of the Committee to study problems of motor vehicle accidents was a progress report that covered problems of physical and mental defects. The most disturbing element in automobile driving seems to be alcoholic intoxication. This committee is continuing its study. It is recommended that each member follow this report in the *Journal of the American Medical Association*.

The report on medical patents by the Council was referred to this Committee. Since the beginning of medical ethics, it has been held that it is not proper for a physician to receive rewards from any patent covering any agency useful in either prevention or cure of disease. Of course there should be no restrictions on the use of such agencies, so that all of the population may be benefited. Recently, however, there seems to be an abuse of this time-honored principle of medical ethics. There is so much controversy over this question that the Committee referred this to the Judicial Council for further study.

The race and color issue was raised as to membership in the American Medical Association. The American Medical Association issues membership without regard to race, color or creed. Since this is true, the matter resolves itself to solely a question that affects the county medical society.

Medical relief through Farm Relief Security Administration: In many of the drought areas of our country the farmer and his family, being made destitute, have sought medical care through the Farm Security Administration. Many abuses have arisen, and it appeared to the House of Delegates that county societies may well be guided by their state medical society in all contracts that they may be called upon to make for any type of medical care, either relief or low-income insurance groups.

Appearing before the House of Delegates were many distinguished guests, officers of foreign medical societies: Dr. G. E. Hercus, Dunedin, New Zealand, representing a New Zealand medical society; Dr. T. C. Routley, Secretary of the Canadian Medical Association; President-Elect Dr. L. E. LeSeouf of the West Australian Branch of the British Medical Association, and many others. Each made a short address. It was interesting to note each stressed the fact that medicine throughout the world is beleaguered with the same social destructive forces that confront the American Medical Association.

Scientific Exhibit

On page 2315 of the June 3 edition, 1939, *Journal of the American Medical Association*, will be found a report of the Scientific Exhibit, and throughout the year will appear in the *Journal of the American Medical Association* excerpts from the material set-up of this exhibit. This was the largest and best exhibit that has ever been shown and this can be said practically each succeeding year regarding Scientific Exhibits.

Scientific Meetings

Scientific meetings were well presented and well attended.

The Scientific Exhibits and the Scientific Assembly are the greatest evidence of the progress that medicine and the individual doctor is trying to make regarding the care and treatment of sick people in this country. The extent to which the doctor is going in keeping abreast of the times is marvelous and far outstrips any other profession or business in the matter of personal education and the attempt to gain personal knowledge of how best to treat patients and to carry out the principles of his profession.

The following Michigan physicians were approved for affiliate fellowship on recommendation of your State Society:

Robert W. Gillman, M.D., Detroit, Michigan.

William P. Scott, M.D., Houghton, Michigan.

Distinguished Service Award

The distinguished service award which is given

annually to some outstanding physician of the organization who has made many worthwhile contributions to medicine and to society was awarded to James B. Herrick, M.D., Chicago.

The following were elected to office: President-Elect, Dr. Nathan B. Van Etten, New York; Vice-President, Dr. Alphonse McMahon, St. Louis; Secretary, Dr. Olin West, Chicago; Speaker of the House of Delegates, Dr. H. H. Shoulders, Nashville, Tennessee; Vice-Speaker of the House of Delegates, Dr. R. W. Foutz, Omaha, Nebraska; Trustees, Dr. Roger L. Lee, Boston, and Dr. E. L. Henderson, Louisville, Kentucky; Treasurer, as nominated by the Board of Trustees, Dr. Herman L. Kretschmer, Chicago.

Atlantic City, New Jersey, was chosen as the place of meeting for the session of 1942.

The total registration at the St. Louis session was 7,412, and for Michigan the registration was 190.

L. G. CHRISTIAN, M.D.
F. E. REEDER, M.D.
C. R. KEYPORT, M.D.
T. R. K. GRUBER, M.D.
HENRY A. LUCE, M.D.

ANNUAL REPORT OF REPRESENTATIVES TO JOINT COMMITTEE ON HEALTH EDUCATION

Last fall your representatives met with the executive committee of the Joint Committee to discuss, with officers of the State Society and the chairmen of those committees of the State Society who are coöperating with the Joint Committee, matters of policy and details of coöperative effort.

The valuable link with the University of Michigan, through its Extension Division, makes possible the dissemination of health information to the public through a set-up which is not duplicated in any other state. Committee chairmen have coöperated splendidly in furnishing competent speakers, and the Division has satisfactorily met the many requests.

Especially worthy of commendation is Dr. Grover C. Penberthy and his Radio Committee, who have furnished most excellent material for radio broadcasts. This material is disseminated through the Extension Division, which coöperates with the Joint Committee in arranging details with the different broadcasting stations.

The Health Column in the *Detroit News* increases in popularity year by year. The column, as you know, offers a question-answer service. Indicative of its increased popularity, Dr. H. H. Riecker and his staff have been almost overwhelmed by the volume of correspondence. This material is distributed to papers in some of the smaller cities, and is sent out generally to health units throughout the state.

One of the most important features of the Joint Committee activity has come through an affiliation and a working partnership between the Joint Committee and the two state departments, the Department of Public Instruction and the Department of Public Health. The Joint Committee is convinced that there is no activity which is of more importance than that which is directed to the health education of the school child. It feels that there is a great need that health education should have a more conspicuous place in our school curriculum. Indicative of the coöperation between Superintendent Eugene B. Elliott of the Department of Public Instruction and the Joint Committee, it is pleasant to report that he invited the Executive Committee of the Joint Committee to meet with him

and the heads of his instruction divisions, for the purpose of "advising on the development of a policy and on planning for the next steps which should be taken in order to make health education in Michigan schools more satisfactory."

The Joint Committee has issued this year Bulletin No. 4, "Experiences in Healthful Living," for teachers. The first five thousand edition was financed by the Health Department, and the second five thousand is being financed by the Joint Committee.

There are now available splendid health movies, both silent and sound. The Joint Committee, impressed with the opportunities offered through visual education, has set aside one thousand dollars for the purchase of such films for adult education. These will be available in the fall. It is not expected that these films will be a substitute for the speaker's address, but they will serve to supplement his talk and will bring more forcefully the subject matter to the consciousness of his audience.

After sixteen years the Joint Committee has decided that it needs a more formal organization, and a constitution and by-laws was adopted at the annual meeting. This formal organization starts with a nucleus of twenty-four groups, and provides for the election of new groups—"any organization established on a statewide basis which has for an objective the betterment of the health or welfare of the citizens of the state of Michigan, and educational institutions giving training for the health professions, shall be eligible for membership."

The groups are so diverse that it becomes necessary to have an executive committee who will carry out the details and more or less direct the policy. The executive committee consists of the chairman and vice chairman, elected by the parent committee, the director of the Extension Division of the University of Michigan, and the chairmen of the four standing committees. As indicative of the statewide effort to disseminate health knowledge, it is interesting to note that the by-laws provide that the State Department of Health and the State Department of Public Instruction are invited to appoint one representative each to be ex-officio members of the executive committee. The executive committee this year will be: Dr. B. R. Corbus, *chairman*; Dr. M. R. Kinde, *vice chairman*; Dr. C. A. Fisher, *secretary*; Dr. B. W. Carey; Miss Marjorie Delavan; Dr. Mabel Rugen; Dr. Henry A. Luce.

Respectfully submitted,

B. R. CORBUS, M.D., *Chairman*
M. S. CHAMBERS, M.D.
L. FERNALD FOSTER, M.D.
J. B. JACKSON, M.D.
R. C. MOEHLIG, M.D.

ANNUAL REPORT OF ADVISORY COMMITTEE ON POSTGRADUATE EDUCATION, 1938-39

The Committee was called together but once during the past year, at which time most of the subject matter was discussed. To avoid loss of time on the part of the Committee and the difficulty of securing a complete attendance, a résumé of suggested courses for the Autumn program was submitted to the members by mail, and a majority vote secured on the subject matter, together with suggestions for new material. The following is the program decided upon for the coming Autumn:

1st Day

- (a) Pediatrics.—Principles in the Care of the Newborn and Premature Child.
- (b) Obstetrics.—Management of breach presentation.

THE 1939 MEETING

2nd Day

- (a) Surgery.—Surgery of childhood.
- (b) Modern methods in the recognition and management of liver and gall bladder disease.

3rd Day

- (a) Colitis.—Types, diagnosis and management.
- (b) Heart failure—its diagnosis and management.

4th Day

- (a) New drugs and developments in their use.
- (b) Differential diagnosis and management of pyuria.

The registration in the courses in postgraduate medicine from July 1, 1938, to June 30, 1939, is as follows:

Extramural Courses

Ann Arbor	148
Battle Creek-Kalamazoo	172
Flint	183
Grand Rapids	209
Lansing-Jackson	158
Saginaw	187
Traverse City-Cadillac-Manistee-Petoskey	105
Marquette-Saulte Ste. Marie-Houghton-Escanaba*	115
Grayling-Alpena-Petoskey-Traverse City*	262
	1539

Intramural Courses—Ann Arbor and Detroit

Allergy	31
Anatomy	33
Blood Diseases	35
Care of the Diabetic	27
Electrocardiographic Diagnosis	31
Gynecology & Obstetrics*	58
Gynecology, Obstetrics & Gynecological Pathology	17
General Practitioners' Course	33
Hematology (Kellogg Course)	34
Neuropsychiatry	24
Ophthalmology and Otolaryngology	64
Pediatrics	96
Personal Courses	188
Proctology	19
Roentgenology	25
Serology	7
Summer Session	27
Urology	4
Courses in centers outside of Michigan	100
	853
TOTAL	2392

Summary of registrations

	Men	Women	Total
Extramural Courses	1117	45	1162
(October and April)			
Courses in Maternal Welfare and Pediatrics, in collaboration with Michigan Department of Health, through Federal funds	368	9	377
Intramural Courses	719	34	753
(Ann Arbor and Detroit)			
Number taking courses outside of State	100	..	100
	2304	88	2392

*Joint auspices with Michigan Department of Health through Federal funds.

In a further evaluation of various postgraduate activities it is suggested that the following changes and additions be made to those already accepted by the House of Delegates:

1. Attendance on County Medical Society meetings advanced from one unit to three.
2. Attendance State Society meetings from one unit to three.
3. Attendance American Medical Association annual meetings from one unit to three.

In addition, attendance on accredited staff hospital conferences and other professional meetings within the hospital two to ten units.

The difference in these last figures being estimated on the basis of visiting privileges as against active participation of staff members.

The first three suggestions are made on the basis of relative educational values and in the hope of stimulation of attendance on these important functions. Additional forms of credit may properly be added from time to time as members avail themselves of new educational opportunities either within or without the state. The establishment of the unit system of credits for certification is proving a practical method.

In the former communication your Committee recommended that the chairmen of the following committees be included in the Advisory Committee on Postgraduate Education. These include Preventive Medicine, Cancer, Maternal Health, Mental Hygiene and the chairmen of such other committees in specific professional fields as may be authorized from time to time. The principal functions of the above committees are educational—both professional and lay, and their chairmen continued over the years, as many of them have been, will permit of very valuable assistance in the maintenance of the Society's program in the general field of postgraduate education.

The year just closed has been our most successful in point of attendance, which has increased over 20% over the preceding year, and the general interest is evidenced by the increasing number of approving letters coming to the Committee. The National Commission on Graduate Medical Education has reported within the year that of 24 states visited for purposes of analysis of postgraduate educational activities, the state most nearly approaching educational ideals in philosophy and practice is Michigan.

On the part of the Committee may I express appreciation for the interest and support which have always been forthcoming from the House, the Council and our membership.

Respectfully submitted,

JAMES D. BRUCE, M.D., *Chairman*
 R. B. ALLEN, M.D.
 A. P. BIDDLE, M.D.
 FRED H. COLE, M.D.
 B. R. CORBUS, M.D.
 H. H. CUMMINGS, M.D.
 J. H. DEMPSTER, M.D.
 C. T. EKKELUND, M.D.
 W. B. FILLINGER, M.D.
 C. L. HESS, M.D.
 F. E. REEDER, M.D.
 W. K. SLACK, M.D.
 D. I. SUGAR, M.D.

ANNUAL REPORT OF LEGISLATIVE COMMITTEE, 1938-39

Your Legislative Committee held eight meetings during the past year: on November 17, 1938; January 15 and 22; February 8; March 2, 12 and 21; and April 16, 1939.

Pursuant to instructions of the Michigan State

Medical Society House of Delegates, your Legislative Committee worked for the enactment of laws permitting the creation of voluntary non-profit group medical care and group hospitalization corporations in Michigan. The Michigan Hospital Association assumed the major responsibility for the group hospitalization bill (HB-145) which traveled through the Legislature as a companion measure to the famous HB-215, the group medical care proposal. The difficulties encountered in the passage of this excellent legislation designed for the benefit of the public were unbelievably numerous and trying. An account of the amount of work necessary to build up the overwhelming majorities in the House (78 to 5) and in the Senate (30 to 0) in favor of this legislation would fill several volumes. The sincere thanks of the Legislative Committee is extended to those intelligent and health-minded members of the Michigan Legislature who staunchly supported the medical profession and its legislative program because they were convinced it constituted good sound public policy. To Sherman L. Loupee, M.D., of Dowagiac, the only physician-member of the Legislature, we express gratefulness for his wise and fearless defense of Medicine.

Our Committee is grateful also to the farsighted Council of the Michigan State Medical Society, which constantly encouraged the Legislative Committee in its nerve-racking job; we appreciate the help of our Delegates, and of our "keymen"—the family physicians of legislators, physicians in every county of the state, chairmen and members of county medical society policy and legislative committees; representatives of labor, agriculture, industry, religious and educational organizations, and all other groups which gave invaluable aid, advice and encouragement. We are indebted to the gentlemen of the press for their intelligent and fair presentation of our purposes. To all these and many others, we say a sincere "Thanks."

The new Welfare Law (SB-129) was passed containing a medical set-up in counties in accordance with the recommendations of the Michigan State Medical Society. It is to be noted that our Legislature tried and succeeded in giving Michigan a good and protective medical relief program without setting up an expensive bureaucracy. Realizing that there is a limit to the luxury which any civilization can carry, the legislators developed a policy of good relief without extravagance which is in direct line with the desires of the medical profession as contra-distinguished from the well known spending policy emanating from other sources.

The appointment of a member of the Michigan State Medical Society, L. G. Christian, M.D., of Lansing, as a member of the Michigan Social Welfare Commission, augurs well for the early establishment of a workable and well-coordinated medical welfare program in Michigan—if the county medical societies cooperate through early and constant action.

Your Legislative Committee respectfully reports that the full five-man Basic Science Board was appointed by the Governor in May, 1939.

Much Legislation of Interest to the Doctor

In addition to the group medical care law and the welfare law, the 1939 Legislature passed the following acts which are of importance and interest to the doctor of medicine:

1. HB-158—V. D. Control Law: amendments to the prenuptial physical examination law, correcting harsh provisions. Passed in identical form as proposed by the Advisory Committee on Syphilis Control, MSMS. Considered a model premarital examination law. Given immediate effect, and signed by the Governor.

2. HB-277—V. D. Control Law: this bill requires physicians attending a pregnant woman to examine her for venereal disease; and requires a statement on the birth certificate to the effect that the test was made. Passed, given immediate effect, and signed by the Governor.

3. SB-367—Amendments to the Afflicted Child Law, giving organizational powers to the Crippled Children Commission. Reduces surgeon's top fee from \$75.00 to \$50.00; day rate for hospitals reduced from \$4.50 to \$3.50. Passed on final night of session, and signed by the Governor.

4. HB-145—Permits formation of non-profit voluntary group hospitalization corporations. Passed the Legislature by an overwhelming majority, and signed by the Governor. Immediate effect.

5. SB-108—Defines group hospitalization and group medical care insurance under the Insurance Code. Passed, given immediate effect, signed by Governor.

6. SB-130—Amendments to Afflicted Adult Law to provide for the hospitalization of afflicted adults under supervision and control of county departments of social welfare. Passed, and signed by governor.

7. SB-93—Bill to govern use of insanity pleas; to require mental examination of any person charged with an offense punishable by life imprisonment. Passed, and presented to Governor for signature.

8. HB-278—Redefines term Cannabis as used in Narcotic Drug Act. Passed and signed by Governor.

9. HB-470—General amendments to unemployment compensation act. Passed and signed by Governor.

The following bills were proposed in the last session of the Legislature, but were not enacted into law:

1. SB-269—Bill to set up Board of Examiners in Naturopathy. Tremendous pressure was exerted to secure enactment of this dangerous proposal which would have practically nullified effects of the Basic Science Law, as most chiropractors could have qualified as naturopaths. Passed the Senate but was killed in the House Committee after a hard battle.

2. SB-386—Bill to permit the formation of group osteopathic care corporations. Drafted to include all branches of medicine and surgery. Amended to include only osteopathy; bill killed in the House Committee.

3. HB-392—Insane persons being tried for felony to be reexamined by psychiatrist. Passed by House, killed in Senate.

4. HB-435—Afflicted Children to come under jurisdiction of Michigan Social Welfare Commission. Died in Committee.

5. HB-336, 550, 567, 568, 623—All bills amending the Workmen's Compensation Law. All died in House Labor Committee.

6. SB-59—Repeal of 1937 Narcotic Drug Act. Died in Committee.

7. SB-317—To establish State Board of Pharmacy. Died in Committee.

8. SB-318—to amend Narcotic Drug Act. This bill, which included repeal of the \$1.00 license imposed on physicians, was so all-inclusive that it died in Committee.

9. SB-319—To establish Michigan Drug and Cosmetic Act. Died in Committee.

10. HB-272—General amendments to act regulating practice of pharmacy. Died in Committee.

11. SB-140—To create State Board of Medical Examiners to replace present coroner system. Died in Committee.

12. SB-304—To authorize state department of health to establish and subsidize branch laboratories throughout the state. Died in Committee.

13. SB-428—To provide that all hospitals and institutions that are supported wholly or in part by taxes shall make no discrimination against practitioners of any school of healing recognized by laws of Michigan (such as chiropractors and osteopaths). Died in Committee.

14. HB-559—A bill ostensibly designed to regulate the practice of healing in the state, but calling for annual re-registration and postgraduate courses for all healers mixed together, etc. Died in Committee.

15. HB-540—"Employer" in unemployment compensation law to mean any employing unit which employs one or more individuals—which would include most physicians. Died in Committee.

16. HB-551—Repeal of unemployment compensation law. Died in Committee.

17. HB-598—Relative to qualifications of physicians and hospitals with reference to crippled children. Died in Committee.

18. HB-631 and 632—Re-allocation of moneys to counties for care of afflicted and crippled children. Passed by House; died in Senate Committee.

19. SB-51—To make all occupational diseases compensable, etc. Died in Committee.

20. SB-15—Amendments to garnishment law liberalizing in favor of garnisheed, making it practically impossible to garnishee anyone. Died in Committee.

RECOMMENDATIONS:

1. Your Legislative Committee respectfully recommends continued contact of legislators by their medical constituents, and tangible reciprocity through patronage of our legislator friends in their capacities as professional and business men.

2. We recommend that the Welfare Law of 1939 be understood by all members of the Michigan State Medical Society who may be called upon to give medical service to the indigent, and particularly by officers of our county medical societies, who should be urged to make early contact with county or district welfare commissions and boards of supervisors in order that a working medical relief unit is organized in all counties or districts. Otherwise, doctors of medicine may be told what to do and how to practice relief medicine.

3. We recommend that every member of the Michigan State Medical Society read Act No. 108 of the Public Acts of 1939, our enabling act, and understand the State Society's plan of voluntary non-profit group medical care. We urge that county medical society officers enlist the enthusiastic co-operation of all physicians in their county or district, to give this important experiment a fair trial.

4. We recommend that Michigan physicians understand the provisions and dangerous import of the Wagner Bill (Senate No. 1620 in the United States Congress) and that they stand behind the State Society and the American Medical Association in their efforts to prevent such socialistic measures being enacted into law in these free and democratic United States. We recommend eternal vigilance during every day of 1939 and especially 1940 to the end that this destructive piece of legislation may fail.

5. Your Committee invites attention to the need for changes in the Medical Practice Act to bring it up to date, and respectfully recommends that the Michigan State Board of Registration in Medicine be urged to seek these changes, especially with reference to qualifications of board members, at the next session of the Legislature as one of the Board's major activities. It also recommends that additional inspectors be utilized by the State Board of Registration in Medicine, to augment the effective work done by one inspector during the past year.

6. Finally, we recommend a stronger, active and where necessary a financial interest by physicians in

other organizations created to uphold our constitutional form of government. Few physicians are able to sacrifice time from their daily practice to fight battles for the principles to which they ardently adhere; it is vital, therefore, that support be given by the individual practitioner of medicine not only to his county, state and national medical organizations, but to other aggressive committees or leagues which are seeking the same results desired by the doctor.

We have spared neither time nor effort in our legislative work, and we believe that we have gained further respect for the Michigan State Medical Society from legislators, elective officers of the State, the press and the general public.

Again, to all the hundreds who have responded to our requests for assistance, we thank you most heartily.

Respectfully submitted,

HAROLD A. MILLER, M.D., *Chairman*
L. G. CHRISTIAN, M.D.
BURTON R. CORBUS, M.D.
I. W. GREENE, M.D.
WM. H. HONOR, M.D.
STANLEY W. INSLEY, M.D.
O. G. JOHNSON, M.D.
CHAS. S. KENNEDY, M.D.
G. L. McCLELLAN, M.D.
A. R. MILLER, M.D.
E. W. SCHNOOR, M.D.
O. D. STRYKER, M.D.
P. R. URMSTON, M.D.
J. B. BRADLEY, M.D., *Advisor*
HENRY E. PERRY, M.D., *Advisor*

ANNUAL REPORT OF LIAISON COMMITTEE WITH STATE BAR, 1938-39

In reporting on the activities of the Liaison Committee with the State Bar of Michigan for this year, we wish to state that no formal meeting of the committee has been held. No matters have been referred to the committee by the Michigan State Medical Society.

In addition your chairman contacted Mr. Earl W. Munshaw of Grand Rapids, who is chairman of the analogous committee of the State Bar of Michigan and he had nothing to suggest for our consideration.

Respectfully submitted,

LEITZHE SNYDER, M.D., *Chairman*
C. W. BRAINARD, M.D.
A. F. JENNINGS, M.D.
A. D. RIKER, M.D.
THOMAS WILENSKY, M.D.

ANNUAL REPORT OF ADVISORY COMMITTEE ON NURSES' TRAINING SCHOOLS, 1938-39

The Advisory Committee on Nurses' Training Schools met with the State Nurses Board of Registration on March 8th in Lansing.

The question of reopening nurses' training schools at the Memorial Hospital in Owosso and the City Hospital in Benton Harbor were taken up, and at the same time, there was a discussion of the nurses bill which was being considered by the legislature.

At the meeting we were assured that we would get all the coöperation possible in re-establishing the training schools. However, since this meeting, the Memorial Hospital in Owosso has made application for reestablishing its nurses' training school and after about 3 months' delay the hospital was told that it would have to live up to the rules regarding training schools to the letter and that it would have to affiliate 6 months in pediatrics and medicine. The regulations state that for a hospital this size a daily

average of 7 patients is necessary in pediatrics; The Owasso Hospital has had a daily average of 7 plus. The rule states that medical service should approximate $\frac{1}{4}$ of the surgical cases and in this hospital the medical cases were over $\frac{1}{2}$ the surgical cases.

This information was conveyed in a letter written June 5th by Miss Stahlnecker which arrived at the hospital June 17th. In other words, we wish to report that we have been given the so-called "run around" by the Board of Registration of Nurses and practically speaking, have accomplished nothing.

The only encouragement we have to date, is that we could establish a training school for trained attendants which, while it isn't what we need or what we want, may be what we will have to consider.

Sincerely yours,

A. L. ARNOLD, JR., M.D., *Chairman*
 CECIL CORLEY, M.D.
 WM. E. ELLET, M.D.
 H. A. MILLER, M.D.
 E. A. OAKES, M.D.
 F. J. O'DONNELL, M.D.

ANNUAL REPORT OF COMMITTEE ON THE DISTRIBUTION OF MEDICAL CARE, 1938-39

The Committee has this year largely concerned itself with the problem of voluntary group medical care. The House of Delegates at a special meeting in Detroit in January, empowered The Council to proceed with such a plan. This required the development of an Enabling Act, helping to influence its passage and developing details including the following:

- (1) A unit contract
- (2) A cash contract
- (3) A tentative fee schedule
- (4) A survey fee schedule
- (5) An analysis of medical insurance plans
- (6) A membership agreement
- (7) A subscriber's application blank
- (8) A tentative structure of the corporation
- (9) By-laws
- (10) Questionnaire on the application of voluntary health insurance
- (11) Cash indemnity policy
- (12) Structure of cash indemnity corporation
- (13) Physician's contract
- (14) Diagnostic card
- (15) Control card
- (16) Perspectus
- (17) Child's policy
- (18) Family Policy
- (19) Articles of incorporation

At the May meeting of the Executive Committee of The Council, all details developed by the Com-

mittee were turned over to the Executive Committee of the Council, advising that the time had come when an Executive Secretary or Manager should be appointed to proceed with the development.

Respectfully submitted,

RALPH H. PINO, M.D., *Chairman*
 HARRY F. BECKER, M.D.
 T. S. CONOVER, M.D.
 S. W. HARTWELL, M.D.
 WM S. REVENO, M.D.
 J. M. ROBB, M.D.
 G. B. SALTONSTALL, M.D.
 E. L. THIRLBY, M.D.
 R. G. TUCK, M.D.
 STUART YNTEMA, M.D.
 WM. H. MARSHALL, M.D., *Advisor*

ANNUAL REPORT OF IODIZED SALT COMMITTEE, 1938-39

The Iodized Salt Committee has had under consideration for several months the preparation of a pamphlet for use in iodized salt propaganda. A sub-committee was appointed to meet with the salt men to prepare such a pamphlet, and the material drawn up was submitted to each member of the Iodized Salt Committee for their correction and final approval.

Respectfully submitted,

D. MURRAY COWIE, *Chairman*.
 THOMAS B. COOLEY, M.D.
 DAVID J. LEVY, M.D.
 EDGAR MARTMER, M.D.
 FRED MINER, M.D.

ANNUAL REPORT OF LIAISON COMMITTEE WITH MICHIGAN HOSPITAL ASSOCIATION, 1938-39

There have been no meetings of the committee nor has anything been accomplished during the past year.

Due to the highly controversial and argumentative subject of Group Hospital Insurance that was in existence during the early part of the year, it was decided to allow the Executive Committee and The Council the privilege of liaisoning the hospitals rather than this committee. So there is nothing to report.

Respectively submitted,

T. K. GRUBER, M.D.
 A. L. ARNOLD, JR., M.D.
 W. D. BARRETT, M.D.
 REUBEN MAURITS, M.D.
 E. A. OAKES, M.D.
 E. R. WITWER, M.D.

INFLUX OF REFUGEE PHYSICIANS FOCUSES ATTENTION ON CITIZENSHIP QUESTION

The influx of refugee physicians has focused attention on the question of citizenship in the granting of licenses to practice medicine.

J. E. McIntyre, M.D., Lansing, Mich., secretary of the Michigan State Board of Registration in Medicine, in *The Journal of the American Medical Association* for March 18 says:

"It is interesting to note that most states have already required either United States citizenship or first papers as a condition precedent to taking the state board examinations. Only the following states require neither full citizenship nor first papers at the present time: California, Illinois, Massachusetts, New Hampshire, New Mexico, New York, Ohio, Texas, Utah and the District of Columbia. Either by state law or by a ruling of the state boards of registration in medicine, the following states now require full United States citizenship: Alabama, Arkansas, Delaware, Florida, Georgia, Indiana, Kansas, Kentucky, Michigan, Missouri, Montana, Nevada, Nebraska, North Carolina, North Dakota, Oklahoma, South Carolina, South Dakota, West Virginia, Wyoming and, except in the case of Canadians, Arizona, Iowa and Minnesota."

Department of Economics

L. FERNALD FOSTER, M.D., Secretary

74 BRIGHT LIGHTS ON YOUR 74TH BIRTHDAY CAKE

Plans are now completed for the 74th Annual Meeting of the Michigan State Medical Society, to be held in Grand Rapids. A meeting of the House of Delegates on Monday, September 18, will be followed by four days of Scientific Assemblies. The addition of an extra day this year makes provision for ten extra speakers before the General Assemblies.

This year's session, following the precedent of the past two years, will be of the General Assembly type. The thirty-eight speakers appearing at the General Sessions will provide a well-rounded postgraduate program for the physicians in attendance. These essayists, all from out-of-state, will discuss subjects pertaining to every phase of the practice of medicine. The subjects, designed largely to serve the general practitioner, will be presented in a practical way and with a distinct clinical significance. The appearance of men from out of Michigan on the General Assembly program enables the County Societies and Postgraduate Conferences to make a wider use of the many splendid Michigan men on other occasions throughout the year.

Wednesday morning of convention week will be devoted to Section Meetings for topics of a more specialized nature, and for the election of section officers.

A small Scientific Exhibit will be presented this year by various organizations and institutions. The lack of available space has precluded this phase of the annual meeting at the past several sessions.

An unusual Technical Exhibit has been arranged for this year. Nearly one hundred spaces have been provided for a display of the latest accredited products and appurtenances of modern scientific development. Every provision has been made for your comfort in viewing these exhibits and convenient periods for this purpose have been interspersed between the speaker assignments.

The unique arrangement of the Civic Auditorium and one hotel in Grand Rapids makes it possible to hold this great conven-

tion under one roof. Other modern hotels are within short distances of the Auditorium.

By an unusual coincidence there appear seventy-four essayists on the program of this, the 74th Annual Meeting of the Michigan State Medical Society. No meeting of the State Society in its long history has provided such a fine program of Postgraduate Education, recreation, relaxation and vacation opportunities. This great scientific spectacle has been made possible by the sustained interest and coöperation of over 4,000 members of the State Society. It is YOUR meeting and it is hoped that you will avail yourself of its many advantages.

Plan now to be present throughout all the sessions—refresh your knowledge of modern practice, see the new technical devices of scientific interest, meet and greet your friends and classmates and help by your presence to make this a banner convention.

**Remember — Grand Rapids — September
19, 20, 21 and 22, 1939.**

SENATOR WAGNER'S AMENDMENT REJECTED

The amendment to HR-6635, the Wagner Amendment to the Social Security Act, was not accepted by the U. S. Senate Finance Committee and was not in the bill as it passed the Senate on July 14 and went to conference. Previously this bill had been approved by the House of Representatives. The conference is to settle minor differences in the form by which the House and Senate passed the legislation.

Senator Wagner's amendment proposed to authorize the Social Security Board to make provision for furnishing medical, surgical, institutional, rehabilitation or other services to an ill-defined class of persons unable to work because of disability. His plan seemed to contemplate the establishment of a national medical service for the benefit of such persons regardless of their ability to provide for themselves.

Members of the Senate Committee on Finance, to whom letters of appreciation should be sent by our doctors of medicine,

are Senators Pat Harrison of Mississippi, Chairman; William H. King of Utah, Walter F. George of Georgia, David I. Walsh of Massachusetts, Alben W. Barkley of Kentucky, Tom Connally of Texas, Josiah W. Bailey of North Carolina, Bennett Champ Clark of Missouri, Harry Flood Byrd of Virginia, Peter G. Gerry of Rhode Island, Joseph F. Guffey of Pennsylvania, Prentiss M. Brown of Michigan, Clyde L. Herring of Iowa, Edwin C. Johnson of Colorado, George L. Radcliffe of Maryland, Robert M. LaFollette, Jr., of Wisconsin, Arthur Capper of Kansas, Arthur H. Vandenberg of Michigan, John G. Townsend, Jr., of Delaware, James J. Davis of Pennsylvania, and Henry Cabot Lodge, Jr., of Massachusetts. Address all letters to the United States Senate, Washington, D. C.

Senator Wagner's proposed health bill, S-1620, the National Health Act of 1939, is still before the Senate Committee on Education and Labor.

Save an Order for the M.S.M.S. Exhibitor

GROUP MEDICAL CARE PLAN INCORPORATED

Articles of Incorporation for "Michigan Medical Service" were filed July 14 with the Commissioner of Insurance by officers of the Michigan State Medical Society. Michigan Medical Service embodies the voluntary group medical care plan which is the result of ten years' study and work by the State Society. An enabling act in the 1939 Legislature, to permit this type of non-profit service to the people, was sponsored by the medical profession of this state. The incorporators of Michigan Medical Service are Drs. A. S. Brunk, Detroit; Henry R. Carstens, Detroit; Burton R. Corbus, Grand Rapids; L. Fernald Foster, Bay City; Wilfrid Haughey, Battle Creek; William A. Hyland, Grand Rapids; Henry A. Luce, Detroit; Vernor M. Moore, Grand Rapids; Ralph H. Pino, Detroit; Philip A. Riley, Jackson; Paul R. Urmston, Bay City.

Free Choice of Doctor

By use of the group principle, Michigan Medical Service will act as an agent to enable groups of Michigan's residents to procure medical service in the patient's home, in the physician's office, and in the hospitals of the state. The patient may select the doctor of medicine of his own choosing.

Whole Family Protected

The plan will provide medical services not only to groups of employed people but also to members of their families by the payment of small monthly subscriptions. The State Insurance Department has full regulatory power over this non-profit medical service plan.

Details of Michigan Medical Service—a state-wide program—will be presented to the M.S.M.S. House of Delegates on September 18, 1939.

Save an Order for the M.S.M.S. Exhibitor

WHAT IS A "TORT"?

Malpractice suits are actions in tort. A tort is a wrongful act for which civil action will lie. It is a civil wrong for which legal redress can be rendered by the awarding of money damages and in which the law does not provide punitive action, such as fine or imprisonment, against the offender. A tort is not a crime and differs from a criminal action in that intent is not an important factor. Most malpractice suits are based upon negligence and allege that the physician failed to comply with his implied contract or with one set up by statutory law. A physician may be sued for malpractice because of the acts of his assistants or employees as well as for acts of omission on his own part.

—"The Roentgenologist in Court,"
by S. W. Donaldson, M.D.

Save an Order for the M.S.M.S. Exhibitor

Special Meeting Sunday, September 17 Grand Rapids

All members of the Michigan State Medical Society are cordially invited and urged to attend the Special Meeting on Medical Service Problems, Sunday, September 17, 1939, 8:30 p. m., in the Ballroom of the Pantlind Hotel. Group Medical Care Plans, Welfare Problems, and the Afflicted-Crippled Child Laws will be discussed. As you are vitally interested in these important subjects, plan to attend and join in the discussion.

NEW AFFLICTED CHILD LAW

The 1939 Legislature repealed the old Afflicted Child Act (No. 274 of the Public Acts of 1913) and placed on the Michigan Statutes a new Law (Act No. 283 of the Public Acts of 1939) sponsored by the Crippled Children Commission, which is presented herewith:

AN ACT to declare the policy of the state of Michigan with reference to afflicted children; to provide for the medical and surgical treatment of children who are afflicted with a curable malady or are pregnant, and whose parents or guardians are unable to provide proper treatment; to prescribe the function of the probate court and the Michigan crippled children commission in such cases; to provide for, and regulate the making of appropriations to carry out the purposes of this act; and to repeal all acts and parts of acts inconsistent with the provisions of this act.

The People of the State of Michigan enact:

Section 1. Policy of state. It is hereby declared to be the public policy of the state to provide medical and surgical treatment for afflicted children as hereafter defined. The authority for the administration of this act is hereby vested in the Michigan crippled children commission, hereinafter known as the commission.

Sec. 2. Definition. For the purposes of this act, an afflicted child is hereby defined to be any child under 21 years of age, married or unmarried, whose parents or guardians have resided in this state for 1 year, who is afflicted with a physical defect or illness which can be remedied, including acute fracture, or who is pregnant.

Sec. 3. Commission; specific powers and duties. The commission shall have power, here conferred (1) to administer this act; (2) to adopt, alter, amend and rescind rules and regulations to carry out its provisions; (3) to administer a program of services for the afflicted child as defined in section 2 of this act; (4) to make and enforce rules and regulations concerning employees serving the commission, the approval of hospitals and of treatment and the handling of cases; the approval of convalescent homes, boarding homes, caring for afflicted children as herein defined; (5) the fixing of fees and institutional rates and the approval of bills. The said commission may in its discretion accept from private agencies, groups, associations, or individuals, funds or subscriptions to provide through its appropriate agency or instrumentality in developing, extending and improving services for afflicted children, and the administration thereof.

Sec. 4. Books and accounts; report. The commission shall keep such books and accounts as it deems necessary to adequately record and control its transactions and furnish data necessary for policy determination. The commission shall make a biennial report to the governor and the state administrative board showing the amount of money received and expended and a detailed statement of its activities for said period, and a copy of such report shall be furnished each member of the legislature at its first session following the filing of such report with the governor.

Sec. 5. Investigation and report. Whenever there shall be found in any county an afflicted child as herein defined, whose conditions can be remedied,

and whose parents or guardians are unable to provide proper care and treatment in whole or in part, application for treatment shall be made to the representative of the commission who shall make an investigation and a certificate showing the physical and mental condition of such child and the financial condition of the family and setting forth the copy of the report of such investigation and the report of the physician or surgeon with reference to such child, and if approved by him, he shall refer the case to the probate judge. It shall be the duty of the probate judge to approve or reject such application, and if approved, he may provide for such care and treatment in the child's home, if possible, at local expense. If such treatment cannot be provided, it shall be his duty to make a report of such condition on blank forms prescribed by the Michigan crippled children commission, and to forward all applications for treatment to the commission. Application for an order admitting an afflicted child to an approved hospital as a state charge must be made not later than 5 days from date of admission. Such order shall carry the date of application.

Sec. 6. Responsibility of commission. Upon receipt of such certificate, it shall be the duty of the commission promptly to consider the matter and determine if the case is acceptable as a state charge. If acceptable, the commission may enter an order, directing that such child be conveyed by one who is approved by the commission to a hospital in the state selected by the attending physician, and which has been approved and designated by the commission for the care of afflicted children, as herein defined. Upon the issuance of such order, the commission shall become charged with the responsibility for the proper handling of the case. The commission may transfer such child to some other hospital for treatment better adapted to its needs, or if the condition of the child becomes such that it classifies as a crippled child, the commission shall transfer the child to a hospital approved for the care of crippled children under the crippled children's act, the intent of this provision being that it shall be the duty of the commission to secure for each child such care and treatment as the particular necessities of the case, in the opinion of the commission, may require.

Sec. 7. Designation of hospitals. Any hospital which fulfills the requirements as set forth in the rules and regulations of the Michigan crippled children commission in force pursuant to the provisions of this act may be approved for the care of the afflicted child as herein defined.

Sec. 8. Hospital reports. Approved hospitals receiving patients under the provisions of this act shall promptly report to the commission on blanks to be provided by the commission for that purpose, the date and hour of admission to and discharge from such hospital, the name of the physician and/or the surgeon who is in attendance, and such other information as the commission may require. Notification of the admittance of an afflicted child shall be mailed to the commission by the superintendent of the hospital within 24 hours. A discharge report, giving the date of discharge, and such other information as the commission may require, must be filed within 1 week from date of discharge. No bill for the care of a child shall be approved unless an entrance and discharge report has been filed with the commission. Each approved hospital shall report progress to the commission on the treatment of all afflicted children remaining in such hospital in excess of 10 days in the manner required by the commission. No bills for hospitalization in excess of

10 days shall be approved in the absence of prior negotiation and permission from the commission for additional care.

Sec. 9. Hospital care and treatment. It shall be the duty of the superintendent of said hospital, upon receiving such child, to provide such child with proper hospital service, either in the in-patient or out-patient service of the hospital. The staff of the proper medical or surgical treatment of the child hospital shall be responsible for the prompt and except where such child is under the care of a private physician or surgeon. No child shall be sent to or received into said hospital unless there is a reasonable chance for him to be benefited by the proposed medical or surgical treatment, and as an aid to the diagnosis, prognosis and treatment of such case, a complete history of each case shall be furnished to the hospital and the commission by the examining physician upon request. Any child who shall be diagnosed after admission as a crippled child as defined by the crippled children's act, or as suffering at admission only from acute pulmonary tuberculosis, or only from any other communicable disease, or only from an incurable mental illness or defect shall be retained in the hospital under this act only for such period as may be necessary to discharge him to his home or to the jurisdiction of some other state act for the care of afflicted children. Appropriate rules and regulations may be adopted to effectuate the transfer of patients pursuant to this section.

Sec. 10. Boarding homes; convalescent and out-patient service. An afflicted child who has been assigned to an approved hospital whose treatment can be rendered through the out-patient department of that hospital, may be assigned by the commission to a boarding or convalescent home approved by the state department of public welfare, and supervised by that department, or any other agency approved by the commission, the cost of such convalescent or boarding care and treatment to be billed to the state as provided for in the rules and regulations and in accordance with the rates and fees set by the commission.

Sec. 11. Expenses of commission. Expenses of the commission in carrying out the provisions of this act shall be paid pursuant to appropriations made by the legislature from time to time out of the general fund of the state. Appropriations for the purposes of this act made to pay the cost of investigations and treatment and for the use of the commission shall be made to the commission and shall be separate and apart from appropriations to make effective the provisions of any other act.

Sec. 12. Cost of investigation and report. The cost of the economic and medical investigation by this act shall be paid by the state according to such schedule of fees and expenses as shall be adopted by the commission: *Provided*, That no person in the employ of the state or any county shall be allowed any compensation or traveling expense other than that provided by law. All claims for compensation shall be itemized for each child and rendered monthly under oath to the commission. When such claims are found to be correct and approved, they shall be paid out of the general fund of the state, appropriated for that purpose.

Sec. 13. Hospital accounting. The superintendent of the approved hospital shall keep a correct account of all medical, surgical and nursing services; hospital, boarding or convalescent home services including all ordinary care and such other necessities furnished to said child in accordance with the hospital, convalescent or boarding homes, and physi-

cians' and surgeons' fees as fixed by the commission. The cost of all hospital services and materials shall not exceed a maximum of \$3.50 per day. A charge for hospital services for both the day of admittance and the day of discharge of a patient will not be approved for payment. Professional fees shall not exceed \$50.00 for major operation, and in no case shall surgical and/or medical fees exceed \$200.00 for any 1 patient in 1 year. Said superintendent shall make and file with the commission an affidavit containing an itemized statement of such costs. No compensation shall be charged or allowed to the admitting physician of any hospital; or to any physician, surgeon or nurse who shall attend or treat any such child at the hospital of the University of the State of Michigan, other than the salary or compensation paid to such person by that hospital. Any physician or surgeon treating any such child at any hospital other than the hospital of the University of Michigan may be allowed reasonable compensation as fixed by the commission, and paid by a separate warrant drawn to his order and delivered through the approved hospital. The commission shall fix schedules of compensation to be paid to any hospital, physician or surgeon for the clinical examination, treatment and hospital maintenance of an afflicted child. The schedules of fees and rates herein provided for shall be established and published by the commission at such time as the commission may deem necessary.

Sec. 14. Audit and payment of hospital expenses. Upon filing the affidavit with the commission, and following the approval by the commission, it shall be the duty of the auditor general to audit the same according to the rates fixed by the commission and to draw an order on the treasurer of the state of Michigan for the amount of such costs and forward the same to the approved hospitals. The compensation as fixed and approved by the commission shall be paid through the hospital to the physician or surgeon performing the services hereunder by a separate warrant drawn to his order except at the hospital of the University of the State of Michigan. The warrant of the auditor general for hospital services shall be made payable to the particular hospital rendering services hereunder and delivered to it in payment of such services: *Provided*, That no crippled child as defined by the crippled children's act, or any other child exempted by this act, shall be entitled to care to be paid for by the state under this act. Payment shall be refused on any billing rendered 60 days or more after the discharge of the patient from the hospital.

Sec. 15. Communicable diseases. All costs of care for communicable diseases of afflicted children while in approved hospitals under this act shall be paid by the state and recharged to the county from which the child was committed as provided in the laws dealing with the treatment of communicable diseases.

Sec. 16. Transportation costs. The cost of transportation of such child to and from such hospital shall be paid by the county in which such child resides or from which said child was admitted, and it shall be the duty of the county treasurer to pay such transportation expense out of the general fund of the county upon receipt of the proper certificate of approval thereof from the probate court of the commission.

Sec. 17. Payments by parents or guardians. No child shall be committed to any hospital for medical or surgical treatment under this act until the parents or guardians of such child have entered into an agreement with the commission that they will

repay, if they have been determined to be financially able to do so, the state of Michigan, for the actual cost of such medical or surgical treatment on such terms as shall meet the approval of the commission. Payment of such costs by such parents or guardians shall be made to the treasurer of the county from which the child was admitted, in accordance with the agreement. Said treasurer shall forward to the commission on the fifteenth of each month all payments received, and the commission shall duly credit the account, forward the moneys received to the treasurer of the state, who shall credit these payments to the fund for the cost of the care of afflicted children under this act, and make the money available for reexpenditure hereunder.

Sec. 18. Payment by the state not pauper aid. Such charges as are paid by the state shall not be deemed to have been paid as state or pauper aid, and no person shall be deemed a pauper in consequence of his inability to pay for the care and treatment of a child in an approved hospital under this act.

Sec. 19. Appropriation. The cost of carrying out the provisions of this act shall be paid from money appropriated to the commission for that purpose by the legislature. Appropriations under this act made for the use of the commission and to reimburse the general fund for expenditures hereunder shall be separate and apart from appropriations under any other act.

Sec. 19a. Limitation of state liability. The appropriation made for any fiscal year for medical treatment of afflicted children or for any other service furnished under this act, shall be allocated as follows: 75 per cent of said appropriation shall be allocated among the several counties of the state on the basis of their respective population according to the last federal census; 25 per cent of said appropriation shall be allocated among the several counties of the state on the basis of their respective needs. It shall not be competent for the auditor general to draw warrants for service rendered the residents of any given county in excess of the amount allocated for said county for the fiscal year as in this section provided. Whenever the bills for the service actually rendered in a given fiscal year in a given county shall exceed the amount so allocated to said county, such excess bill or bills shall not be paid by the state then or at any other time, but shall be returned by the auditor general to the probate court wherein it originated, and shall be paid from the funds of said county.

The amount of money paid by the state for service rendered in any month shall be limited to an approximate maximum of one-twelfth of the annual allocation for the county concerned and shall in no case exceed 12½ per cent of such annual allocation.

Whenever the bills for service actually rendered during any month shall be less than the amount allocated to such county, the amount due such county in accordance with the allocation shall be credited to such county on the succeeding monthly bills.

On the first day of each fiscal year the auditor general shall transmit to the judge or judges of probate in each county a statement showing the amount of funds allocated to each of the several counties of the state for the current year and, within 5 days following the first day of each month, the auditor general shall transmit to the judge or judges of probate in each of the counties a statement of the total expenses paid by the state under this act in their respective counties during the pre-

ceding month. Such monthly statement shall be designed to reflect, in addition to the total cash payments made in the preceding month, the months in which the services for which payment is made were actually rendered and the amount on account of each such month.

It is the purpose of this section to so limit the liability of the state for each of the services furnished under this act that (1) the appropriations made by the legislature for any fiscal period will represent the total obligation of the state, (2) that the state will not be required to spend funds beyond the amount of such appropriation and (3) that deficiency or supplementary appropriations will be unnecessary. This section shall be so construed as to effectuate this purpose and it shall be absolutely binding upon the probate courts of this state, any other provision of law to the contrary notwithstanding.

Sec. 20. Funds received from federal government and/or other sources. The state treasurer shall (1) receive all funds granted to the state by the federal government and/or other sources for expenditures under the provisions of this act; (2) act as custodian of such funds; (3) keep them in a separate account; (4) and disburse the funds upon certification by the treasurer of the commission.

Sec. 21. Provisions of act not compulsory. No official or agent, or representative, in carrying out the provisions of this act, shall enter any home or take charge of any child over the objection of the parents, or either of them or the person standing in loco parentis or having other custody of such child, and nothing in this act shall be construed as limiting the power of a parent or guardian or person standing in loco parentis to determine what treatment or correction shall be provided for a child or the agency or agencies to be employed for such purpose except by judicial order.

Sec. 22. Any parent or guardian, official of hospital, physician, employe of county or state or any other person found guilty of wilfully making a false statement or of wilfully giving, accepting, or concealing false information for the purpose of securing aid under this act shall be guilty of a misdemeanor and shall be punished by a fine of not more than \$500.00 or imprisonment in the county jail for not more than 90 days. Any official of any hospital or any physician who shall bill the state under the provisions of this act for the care of a patient and also attempt to force any parent, relative, or guardian of such patient or the patient to pay an additional sum for such care, and who shall be found guilty thereof, shall be punished in the same manner.

Sec. 23. Act number 274 of the public acts of 1913, as amended, being sections 12889 to 12895, inclusive, of the compiled laws of 1929, is hereby repealed. All other acts and parts of acts inconsistent with the provisions of this act are hereby repealed.

Sec. 24. Should any provision or section of this act be held to be invalid for any reason, such holding shall not be construed as affecting the validity of any remaining portion of such section or this act, it being the legislative intent that this act shall stand, notwithstanding the invalidity of any such provision or section.

Sec. 25. This act may be known and cited as the "afflicted children's act."

This act is ordered to take immediate effect.

**CORRESPONDENCE RE AFFLICTED-
CRIPPLED CHILD PROBLEMS**

June 13, 1939.

Honorable Luren D. Dickinson
Governor of Michigan
The Capitol
Lansing, Michigan

Dear Governor Dickinson:

The Executive Committee of The Council of the Michigan State Medical Society is deeply concerned over recent legislation affecting crippled and afflicted children.

The deficiency appropriation to pay for hospital and medical bills contracted for by the State was set by the Legislature at only \$726,000, while the total bills for this service will exceed the biennial appropriation by approximately \$1,200,000. The Michigan State Medical Society is concerned over the *unpaid* deficiency because the hospitals which rendered this service represent charitable institutions which in some cases may find it difficult to continue operation if these bills are not paid; and the physicians and surgeons who rendered service did so at a 50 per cent discount on the assumption that these secured bills would be paid promptly.

Another matter which concerns the M.S.M.S. is the problem of providing necessary hospital and medical care for the large number of crippled and afflicted children during the next two years.

The Legislature set the annual appropriation at \$800,000, which represents a cut of 73% in this important State service. The result will be that many deserving children cannot receive hospitalization, which, if provided at this time, would be economically advantageous to the State in years to come.

Our unfortunate children have unwittingly been penalized, but since the State will suffer the most in the long run, we respectfully recommend that the matter be reconsidered.

In this problem as well as in all medical matters, the Michigan State Medical Society offers its co-operation and help.

Very respectfully yours,
Michigan State Medical Society,
P. R. URMSTON, M.D., *Chairman of the Council*
HENRY A. LUCE, M.D., *President*.

June 29, 1939.

Honorable Luren D. Dickinson
Governor, State of Michigan
Lansing, Michigan

Dear Governor Dickinson:

The Executive Committee of The Council of the Michigan State Medical Society regrets the enactment of recent legislation relative to the appropriation for the purpose of paying hospitals and physicians for the care of afflicted and crippled children. Previous rates and fees were accepted as barely covering the cost to both hospitals and physicians. It is neither just nor possible to expect the purveyor to render service below actual cost.

This is not to be construed to mean that the individual members of the medical profession will repudiate their traditional charitable and humanitarian attitude in the face of acute emergencies and suffering.

We respectfully urge that a Special Session of the Legislature be called, to include provision under the Afflicted-Crippled Children Acts, for remuneration to hospitals and physicians which will at least

cover the cost of rendering their services, and make it possible to provide adequately for social and human needs.

Respectfully submitted,
Executive Committee, The Council, M.S.M.S.
HENRY A. LUCE, M.D., *President*
P. R. URMSTON, M.D., *Chairman*
L. FERNALD FOSTER, M.D., *Secretary*.

July 18, 1939

Michigan Crippled Children Commission
458 Hollister Bldg.
Lansing, Michigan

Attention: W. S. Ramsey, M.D., *Secretary*.

Gentlemen:

Your letter of June 30 was presented to the Executive Committee of The Council, Michigan State Medical Society, at its meeting of July 12.

1. You suggest that we send a letter to our county and district medical societies requesting them to submit a list of names of physicians who might be interested in the position of Medical Coördinator, without salary at the present time. We shall comply with this request, but must reiterate that we believe such a set-up will never be as satisfactory or efficient as the three- or five-man Filter Committee which the medical coördinator would replace. It would appear that the services of our Medical Filter Committees were an unappreciated contribution to the State.

2. You ask that the Michigan State Medical Society write the Commission its views on the reduction in physicians' fee schedules made by the Commission.

While the Executive Committee of The Council, M.S.M.S., appreciates the great problems of your Commission, we invite your attention to the fact that the reduction in fees which you have ordered makes it impossible for Doctors of Medicine to render their services except at a *loss*. We cannot recommend to our county medical societies that their members render services below cost. We are disappointed that the Commission felt it necessary to take this action without conferring with the Michigan State Medical Society through its Executive Committee of The Council. You appreciate that Schedule A represented fees which barely covered the cost to physicians. It is neither just nor possible to expect the purveyor to render service below actual cost.

This is not to be construed to mean that the individual members of the medical profession will repudiate their traditional charitable and humanitarian attitude in the face of acute emergencies and suffering.

We feel that for services rendered in the past, physicians should be paid at the prices agreed upon, and we expect these charges to be paid in full.

We wish to assure you of our coöperation with your Commission in caring for afflicted and crippled children within the limits above defined. Unwittingly these unfortunate children have been penalized, but since the State will suffer most in the long run, we respectfully recommend that your Commission reconsider the reductions made in Schedules A and C, and that it use its influence at a Special Session of the Legislature to the end that the unpaid deficiency be wiped out and that adequate monies be appropriated for the next biennium to perform necessary services.

Very respectfully yours,
L. FERNALD FOSTER, M.D., *Secretary*.

JOUR. M.S.M.S.

Executive Committee of the Council

June 22, 1939

Highlights:

1. Articles of Incorporation of "Michigan Medical Service," covering the M.S.M.S. voluntary group medical care plan, approved for submission to Michigan Insurance Commissioner.
2. Afflicted-Crippled Children Laws' problems.
3. Michigan State Medical Society exempt from federal income taxes.

1. *Roll Call.* The meeting was called to order at 2:15 p. m. in the Statler Hotel, Detroit, by Chairman P. R. Urmston. The minutes of the meeting of June 8 were read and approved.

2. *Voluntary Group Medical Care Plan.* The Executive Committee studied the Articles of Incorporation as submitted by the attorney. On motion of Drs. Brunk-Haughey, and carried unanimously, the name was designated as "Michigan Medical Service."

Motion of Drs. Haughey-Brunk that the Articles of Incorporation, Article Five, should read that the Board of Directors shall be not less than 11 or more than 35 persons. Carried unanimously.

After thorough study of the proposed Articles of Incorporation, motion was made by Drs. Haughey-Carstens that said Articles of Incorporation be adopted as a whole, with amendments as made at this meeting. Carried unanimously.

The Executive Committee recessed for a trip to Windsor, Ontario, to investigate the Essex County Medical Society's plan for voluntary non-profit group medical care. Thereafter, the members returned to Detroit in company with Drs. F. A. Brockenshire, R. E. Holmes and M. S. Douglas and Mr. O. W. Holmes of Windsor. Group Medical Care plans were discussed further.

A letter proposed to be sent from Michigan Medical Service and Michigan Society for Group Hospitalization to employers, suggesting that they wait for the more inclusive plan of group hospitalization and group medical care which is and will be offered by Michigan's two non-profit organizations, was read. Motion of Drs. Carstens-Brunk that the letter be authorized to be sent to a selective list of employers in Michigan, in coöperation with the Michigan Society for Group Hospitalization. Carried unanimously. This will supplement publicity which will result from the incorporation of "Michigan Medical Service."

The need for further assistance in development of Michigan Medical Service was brought out by President Luce. After discussion, motion was made by Drs. Moore-Brunk that Mr. J. D. Laux of Chicago be interviewed, re employment. Carried unanimously.

3. *Afflicted-Crippled Child.* Commissioner Fenech of the Crippled Children Commission stated that the Commission had held a meeting on June 21 to discuss the problems incident to the \$500,000 appropriation for afflicted child work in the next year versus an expenditure (based on past ex-

perience) of \$1,600,000. The Commission is trying to cut down the cases and asked for a conference between representatives of the Michigan State Medical Society, Michigan Hospital Association, and the Probate Judges, on June 28 at 12:30 p. m., Statler Hotel, Detroit.

Matters to be discussed at this meeting: (a) Shall the present fee schedule be cut; (b) Shall less hospitals in Michigan be approved; (c) Development of medical coördinators in counties and districts of the State.

Full discussion resulted in a motion by Drs. Haughey-Brunk that we recommend that the present schedule of fees be continued, although we recognize that it is not sufficient to cover actual overhead costs of medical service. Carried unanimously.

The matter of distributing the deficiency appropriation between hospitals and physicians was discussed. Dr. Foster stated that Secretary Ramsey of the Commission stated there would be no cut rate settlement, that the \$726,000 deficiency appropriation will be applied on the total bills due, only as a partial payment on bills for the fiscal year 1938-39. It is the sense of the M.S.M.S. that a ruling be promulgated to the medical profession that the deficiency appropriation be considered as part payment on the legally-assumed obligation of the state for work ordered from physicians and hospitals during the fiscal year 1938-39, and that the balance due be paid by another deficiency appropriation. Carried unanimously.

4. *M.S.M.S. Taxes.* This matter was presented by the Executive Secretary, who reported that the U. S. Treasury Department had rescinded its ruling of October, 1938, and will consider the M.S.M.S. a business league, exempt from the payment of income taxes, if the M.S.M.S. medico-legal defense is terminated. The same status as a business league has been given to the A.M.A., which has appealed the loss of its status as an educational and scientific institution. The Executive Committee decided that no action be taken, pending the result of the A.M.A.'s appeal.

The Executive Committee requested that the special committee on Medico-Legal Activity be requested to submit recommendations re the future of the medico-legal work of the M.S.M.S.—if the M.S.M.S. House of Delegates discontinues this service next September.

5. *Adjournment.* The meeting was adjourned at 11:50 p. m.

UPPER PENINSULA MEDICAL SOCIETY

MEETING OF 1939

Escanaba, Michigan

August 23 and August 24, 1939

WEDNESDAY, AUGUST 23, 1939

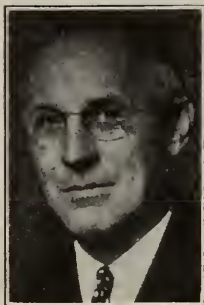
10:00 A. M.-12:00 Registration, Delta Hotel and Bonifas Memorial Auditorium. Registration fee (\$5.00) includes luncheons and banquet and dance for two.

12:00 (noon) LUNCHEON—SHERMAN HOTEL

Program

A. H. Miller, M.D., Toastmaster

1. Address of Welcome—O. S. Hult, M.D., Gladstone, President Delta-Schoolcraft Medical Society.
2. "Our Changing Medical Service"—A. H. Miller, M.D., Gladstone, President UPMS.
3. "Michigan's Group Medical Care Plan"—H. A. Luce, M.D., Detroit, President MSMS.
4. "Problems Facing the Practitioner"—L. Fernald Foster, M.D., Bay City, Secretary MSMS.



H. F. HELMHOLZ, M.D.



W. W. BAUER, M.D.

Afternoon Session

Bonifas Auditorium

- 1:30 Henry F. Helmholz, M.D., Rochester, Minn. "Urinary Tract Infections in Children."
- 2:15 Francis D. Murphy, M.D., Milwaukee, Wis. "The Diagnosis and Treatment of Acute Cardiovascular Emergencies."
- 3:00 to 3:30 INTERMISSION TO VIEW EXHIBITS.
- 3:30 A. B. Mitchell, M.D., and L. G. Christian, M.D., Lansing. "Serum Treatment of Pneumonia."
- 4:15 W. E. Blodgett, M.D., Detroit, Michigan. "First Aid Treatment of Fracture—Transportation."

Evening Session

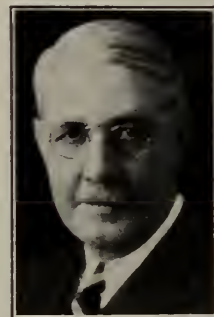
7:00 Annual Banquet—Delta Hotel
A. H. Miller, M.D., Toastmaster
W. W. Bauer, M.D., Chicago, Illinois.
"Popular Beliefs That Are not So."

9:00 p.m. Open House—Dance—Floor Show.
Delta Hotel.

THURSDAY, AUGUST 24



H. CASPARIS, M.D.



JOHN T. MURPHY, M.D.

Morning Session

Bonifas Auditorium

A.M.

- 9:00 Election of Officers.
- 9:15 Wheelock Chamberlain, Marquette, Michigan
"Social Security for Physicians."
- 9:30 Henry R. Carstens, M.D., Detroit, Michigan.
"Peripheral Vascular Disease."
- 10:15 INTERMISSION TO VIEW EXHIBITS.
- 10:45 Horton R. Casparis, M.D., Nashville, Tenn.
"Tuberculosis"
- 11:30 John T. Murphy, M.D., Toledo, Ohio.
"The X-ray Treatment of Advanced Superficial Malignancy illustrated by Colored Lantern Slides."

1:30 p.m. Golf, and Boat Rides.

The Woman's Auxiliary will entertain the visiting ladies. A full program has been arranged, including luncheon, bridge and golf.

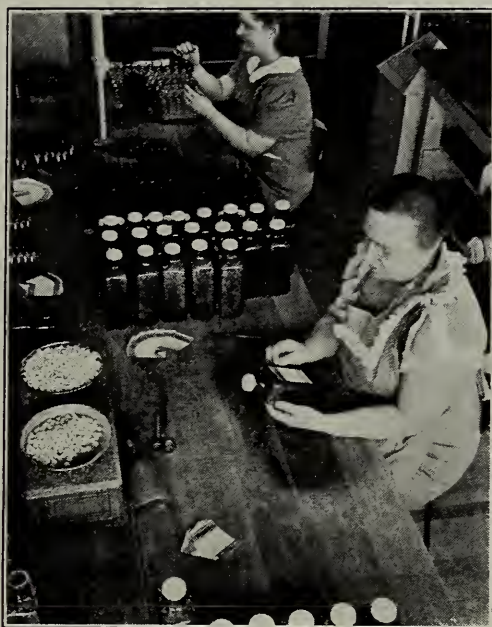
OFFICERS

OF THE UPPER PENINSULA MEDICAL SOCIETY

A. H. Miller, M.D., Gladstone, President
S. C. Mason, M.D., Menominee, President-Elect
N. J. Fremm, M.D., Bark River, Secretary

JOUR. M.S.M.S.

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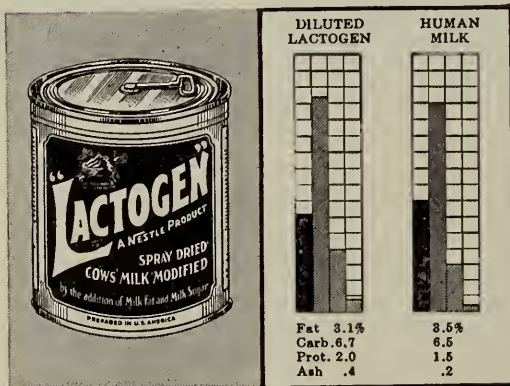
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MICHIGAN'S DEPARTMENT OF HEALTH

HENRY A. MOYER, M.D., Commissioner
LANSING, MICHIGAN

DR. MOYER SUCCEEDS DR. GUDAKUNST

Dr. Henry A. Moyer of Charlotte has succeeded Dr. Don W. Gudakunst as Commissioner of the Michigan Department of Health, taking office on August 1. Dr. Moyer has been appointed by the Governor for the four-year term ending in 1943, the appointment being confirmed June 30 by the Senate.

Dr. Gudakunst has directed the Department since February 1, 1938, completing the unexpired term of former commissioner Dr. C. C. Slemons of Grand Rapids. Previous to becoming state health commissioner, Dr. Gudakunst had served for 14 years with the Detroit Department of Health, becoming deputy commissioner of that department and director of its school health service. His efficient administration of state health activities was commended by Governor Dickinson at the time the appointment of Dr. Moyer was announced.

Dr. Moyer for the past 38 years has practiced medicine in Eaton County, specializing in surgery. Born in Chester Township, Eaton County, in 1876, Dr. Moyer obtained his early education in public schools there and in Grand Rapids. He graduated from the Detroit College of Medicine in 1901 and was licensed to practice the same year. Dr. Moyer served as health officer of Charlotte for four years and as city alderman for a similar period. He is a past president of the Eaton County Medical Society and a member of the Michigan State Medical Society and the American Medical Association.

SANITARY REGULATIONS ADOPTED

The State Council of Health meeting in advisory session with the State Health Commissioner at Traverse City June 22, 1939, approved regulations of this Department with reference to the construction and maintenance of outhouses as defined in the recently enacted sanitary privy law.

The new law, Act No. 273, P.A. 1939, with its accompanying regulations will be an effective means of improving the sanitation of rural, resort and suburban areas, health officials believe. The act makes it unlawful to maintain any "outhouse unless the same shall be kept at all times in a sanitary condition, and constructed and maintained in such manner as not to injure or endanger the public health." Equally effective within the boundaries of urban areas as well as in the rural counties, the new law will make it unnecessary for health officials to prove that a public nuisance exists, for the insanitary outhouse is now legally recognized as a source of fly-borne diseases. The sanitary control of outhouses located within 200 yards of any neighboring residence, or any store or restaurant where food, milk or drink is served, or within 200 yards of any public gathering place, is specifically included within the scope of this act.

Since this law does not become effective for 90 days after final adjournment of the legislature, the intervening period is being used by state and local sanitary officials for an intensive educational program directed toward correction of existing unsanitary conditions. Copies of the sanitary privy law and the regulations and minimum standards of construction may be obtained upon request to the State

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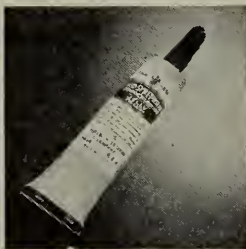
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SURGERY—General Courses One, Two, Three and Six Months; Two Weeks' Intensive Course in Surgical Technique with practice on living tissue; Clinical Courses; Special Courses. Courses start every two weeks.
GYNECOLOGY—Four Weeks' Personal Course, August 28th. Two Weeks' Course October 9th.
OBSTETRICS—Two Weeks' Intensive Course, October 23rd. Informal Course every week.
FRACTURES AND TRAUMATIC SURGERY—One Week Personal Course starting August 14th, August 21st, August 28th. Ten-day Formal Course starting September 25th.
OTOLARYNGOLOGY—Two Weeks' Intensive Course starting September 11th. Informal Course every week.
OPHTHALMOLOGY—Two Weeks' Intensive Course starting September 25th. Informal Course every week.
CYSTOSCOPY—Ten-day Practical Course rotary every two weeks. Urology Courses every two weeks.
ROENTGENOLOGY—Special Courses X-ray Interpretation, Fluoroscopy, Deep X-ray Therapy starting every week.
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Department of Health at Lansing or from the full time local health departments.

PERTUSSIS VACCINE AVAILABLE SEPTEMBER 1

In the pamphlet "Immunization and Diagnostic Procedures" recently printed by the Michigan Department of Health and distributed to its membership by the Michigan State Medical Society, it was announced that pertussis vaccine could be obtained from this Department. This vaccine, however, is not yet being produced for general distribution. An appropriation for this purpose will become available July 1 and production will be undertaken immediately. It is expected that pertussis vaccine will be available for general distribution to health officers and physicians on or before September 1, 1939.

Additional copies of this pamphlet are available to physicians upon request to the Michigan Department of Health at Lansing. The procedures outlined represent the consensus of the best current practices and have been approved by the Michigan Branch of the American Academy of Pediatrics, the Michigan State Medical Society and this Department.

The Immunization Record Form and Schedule for parents illustrated on the back cover of this bulletin is now being printed in quantities for general distribution. A copy of the Immunization Record Form will be sent to parents along with each Certificate of Registration of Birth. Physicians may obtain these record forms upon request for distribution to their patients.

DICKINSON COUNTY HEALTH DIRECTOR

E. F. Hoffman, M.D., has been appointed director of the Dickinson County Health Department, effective June 1. Dr. Hoffman succeeds Dr. Philip Bourland, who has resigned. Previous to accepting his new position, Dr. Hoffman had served as assistant director of the Ingham County Health Department. His new headquarters will be at Iron Mountain.

TUBERCULOSIS CASE-FINDING

Michigan during the past two years has led all other states in the number of tuberculosis cases reported per reported death from this disease, according to a survey recently completed by the American Tuberculosis Association.

A record of 3.39 cases per death in 1938 and 3.05 cases per death in 1937 was established by Michigan health agencies as the result of intensive case-finding programs. These programs have been carried on with the objective of finding and securing treatment for early cases. The District of Columbia and New York followed in succession after Michigan in 1938.

There were 6,335 new tuberculosis cases reported in Michigan last year compared with 6,469 in 1937.

Deaths declined from 2,119 in 1937 to 1,866 last year, and the death rate from 43.9 per 100,000 population to 38.3.

RABIES INSTRUCTIONS

In order to correlate the procedures of local health officers, physicians and others in the handling of animals suspected of having rabies, the Bureau of Epidemiology has issued the following instructions:

I. *Quarantine*.—Animals exposed to rabies or suspected of having rabies should be isolated under

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MICHIGAN'S DEPARTMENT OF HEALTH

strict quarantine and observed daily by a competent veterinarian.

II. *Avoid Killing Animals.*—Animals suspected of having rabies should not be killed except when quarantine cannot be established. If the animal is killed before full development of symptoms, the changes in the brain produced by the disease may not be detected by the laboratory.

III. *Preparation for Shipment.*—If the animal must be killed, avoid injury to the brain which would result from crushing the skull or shooting through the head. Brain tissue decomposes rapidly and the specimens should be shipped in the manner described to avoid decomposition.

The head should be removed and placed in a clean lard pail or similar tight, moisture-proof, metal container. Then this container should be placed in a larger similar container containing a mixture of ice and sawdust. The outside container should then be sealed by solder or by moisture-proof adhesive tape. After the container is properly labeled it should be shipped to the laboratory by the fastest possible method, preferably by messenger in an automobile.

Do not ship more than one head in a container.

IV. Information Submitted with Specimen.—

1. A complete case history including all symptoms manifested by the animal should accompany the specimen in addition to the clinical diagnosis if made.
2. Name and title of person submitting the specimen; i.e., M.D., Health Officer, Veterinarian, etc.
3. Name and address of owner of the animal.
4. Names and addresses of all persons exposed.
5. Age and breed of animal.
6. Date of death.

A recommended schedule for the treatment of cases bitten by rabid animals or by animals suspected of having rabies has also been prepared by the Bureau of Epidemiology. The recommended number of treatments indicated by the circumstances of the case and the type and location of the exposure are shown in the following table. Rabies vaccine may be obtained by physicians without charge from the Michigan Department of Health.

RECOMMENDED SCHEDULE FOR ANTI-RABIC TREATMENT

Group	Circumstances	Head and Neck Exposure*				Extremities and Body Exposure*			
		Bite			Saliva	Bite			Saliva
		Severe	Mod.	Mild		Severe	Mod.	Mild	
A	1. Dog killed or died with rabies or suspected rabies, irrespective of laboratory findings.								
	2. Dog killed or died with no suspicion of rabies, but with positive brain.	21	21	21	14	21	14	14	14
	3. Dog alive with rabies.								
B	1. Dog lost**								
	2. Dog killed or died with no suspicion of rabies and brain unavailable or unsatisfactory.	21	21	14	0	14	14	14	0
C	1. Dog killed with no suspicion of rabies and satisfactory brain negative.	Treat until animal inoculation result available.			0	0	0	0	0
D***	1. Dog isolated and suspected of having rabies.	5	5	5	0	5	5	5	0
E***	1. Dog isolated and suspected of having been exposed to rabies.	5	5	5	0	5	0	0	0

* *Severe Bite:* Lacerated wounds or multiple punctures.

DEFINITIONS: *Moderate Bite:* Puncture wound through skin.

Mild Bite: Indentation or scratch with no evidence of bleeding.

Saliva: Skin intact but saliva present.

NOTE: A recent scratch, hangnail, etc., should be considered for the purpose of treatment as a mild bite.

** If the reported behavior of the dog was suspicious, treat as in Group A. Fomites are to be considered as of no significance unless there has been rapid transfer of saliva from a rabid dog to an abrasion.

*** The treatment schedules under D and E are temporary. If the dog dies or becomes rabid, treat as in A or B. If suspicious symptoms disappear, stop treatment. Release dog if well after ten days.

Some authorities recommend two treatments daily for the first week for severe bites of head and neck in Group A.

POLIOMYELITIS

Eight cases of poliomyelitis have been reported in Michigan during the first six months of 1939. A study of the distribution of this disease throughout the United States since the first of this year made by the U. S. Public Health Service indicates that the incidence of poliomyelitis remained lower than the expectancy according to the five-year median. The only recent outbreak has occurred in South Carolina, and at present that one is apparently on the decline. The Public Health Service reports that nowhere else is poliomyelitis sufficiently prevalent to cause alarm. The present incidence in Michigan would not indicate any widespread outbreak to be expected during the coming months.

LABORATORIES IN MICHIGAN REGISTERED FOR THE SERO- DIAGNOSIS OF SYPHILIS

Reg.

No. Name of Laboratory

- | | |
|-----|------------------------------------|
| | Adrian |
| 202 | Emma L. Bixby Hospital |
| | Albion |
| 205 | James W. Sheldon Memorial Hospital |
| | Ann Arbor |
| 5 | St. Joseph Mercy Hospital |
| 6 | University Hospital |
| 127 | University Health Service |
| | Battle Creek |
| 9 | Battle Creek Sanitarium |
| 234 | Community Hospital |
| 11 | L. Y. Post Montgomery Hospital |
| 175 | Rothberg Laboratory |

Bay City

- | | |
|-----|----------------------------|
| 13 | Bay City Health Department |
| 191 | Gamble Clinical |
| 211 | General Hospital |
| 14 | Mercy Hospital |

Benton Harbor

- | | |
|-----|-------------------------------|
| 170 | Clinical Lab., Mercy Hospital |
|-----|-------------------------------|

Cadillac

- | | |
|-----|----------------|
| 239 | Mercy Hospital |
|-----|----------------|

Coldwater

- | | |
|-----|-----------------------|
| 219 | Branch County Medical |
|-----|-----------------------|

Dearborn

- | | |
|-----|------------------------|
| 245 | Bagley Medical Group |
| 166 | Dearborn Clinical |
| 183 | Ford Motor Co. Medical |

Detroit

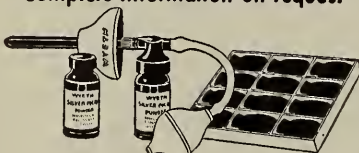
- | | |
|-----|------------------------------------|
| 1 | Detroit Health Department |
| 188 | Alexander Blain Hospital |
| 220 | Angus McLean |
| 195 | Brooks |
| 162 | Buesser |
| 223 | Campbell Clinical |
| 203 | Central Laboratories |
| 18 | Children's Hospital |
| 100 | Clark Clinical |
| 140 | Chas. G. Jennings Hospital |
| 17 | Delray General Hospital |
| 225 | Detroit Med., Surg. & Dental Group |
| 164 | Detroit X-Ray & Clinical |
| 226 | Downtown Clinical |
| 189 | East Side General Hospital |
| 201 | East Side Medical |
| 227 | Edyth K. Thomas Memorial Hospital |
| 198 | Ellwart Clinical |
| 113 | Evangelical Deaconess Hospital |

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156 Fairview Sanatorium
 136 Florence Crittenton Hospital
 21 Grace Hospital
 73 Harper Hospital
 176 Havers
 22 Henry Ford Hospital
 224 Jamieson Allergy & Clinical
 199 Jordan Clinical
 236 Lincoln Hospital
 206 Marr General Hospital
 142 Medical Clinical
 177 Michigan Bell Telephone Co.
 180 Michigan Diagnostic Clinic
 242 Mt. Carmel Mercy Hospital
 157 Nottingham Clinical
 25 Owen Clinical
 88 Parkside Hospital
 26 Physicians' Service
 27 Providence Hospital
 28 Receiving Hospital
 222 Reveno, Wm. S.
 165 Robinson Clinical
 31 St. Joseph's Mercy Hospital
 32 St. Mary's Hospital
 76 Schaefer
 181 Stafford, Frank
 196 Stafford Biological
 212 Trinity Hospital
 237 Wilson Polyclinic
 117 Women's Hospital

Eloise

97 Seymour Hospital

Flint

35 Flint Health Department
 36 Hurley Hospital
 209 St. Joseph's Hospital

112 Women's Hospital
 213 Sullivan
 214 Zimmerman

Goodrich

246 Goodrich General Hospital

Grand Rapids

2 Western Michigan Division, Mich. Dept.
 Health
 167 Allergic & Clinical
 38 Blodgett Memorial Hospital
 40 Brotherhood
 37 Butterworth Hospital
 41 St. Mary's Clinical
 42 Western Michigan Clinical

Grosse Pointe

116 Cottage Hospital
 244 Grosse Pointe Hospital
 158 Nottingham Clinical

Hamtramck

94 Hamtramck Health Department
 210 St. Francis Hospital

Hastings

231 Pennock Hospital

Highland Park

217 Detroit Osteopathic Hospital
 44 General Hospital

Houghton

3 Upper Peninsula Division, Mich. Dept.
 Health

Iron Mountain

193 Itzov Clinical

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Jackson
 146 Jackson Health Department
 45 Mercy Hospital
 186 W. A. Foote Memorial Hospital

Kalamazoo
 47 Kalamazoo Health Department
 91 Bronson Methodist Hospital
 48 Kalamazoo State Hospital
 46 New Borgess Hospital

Lansing
 0 Central Diagnostic Division, Mich. Dept. Health
 163 Larkum Clinical
 69 St. Lawrence Hospital

Lapeer
 125 Lapeer State Home & Tr. School

Marquette
 126 Morgan Heights Sanatorium
 134 St. Luke's Hospital
 248 St. Mary's Hospital

Marshall
 204 Oaklawn Hospital

Monroe
 141 Diagnostic Clinic
 104 Mercy Hospital
 187 Monroe Hospital

Mount Clemens
 51 Macomb County
 50 St. Joseph Hospital

Mount Pleasant
 247 McArthur-Strange Clinic & Hospital

Muskegon
 53 Hackley Hospital
 54 Mercy Hospital

Niles
 118 Pawating Hospital

Northville
 111 Wm. H. Maybury Sanatorium

Owosso
 107 Memorial Hospital

Plainwell
 230 Wm. Crispe Hospital

Pontiac
 56 Dept. Health & Gen'l Hospital
 57 Oakland County Health
 128 Pontiac State Hospital
 132 St. Joseph's Mercy Hospital

Port Huron
 200 Port Huron Hospital
 58 St. Clair County

Powers
 241 Branch Laboratory, Mich. Dept. Health

Roseville
 83 Roseville Health Department

Royal Oak
 240 Royal Oak Hospital

Saginaw
 59 Central Laboratory
 235 St. Mary's Hospital

E M I N E N T

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 229 Sault Polyclinic
 South Haven
 218 South Haven City Hospital
 St. Johns
 108 Clinton Memorial Hospital
 168 St. Johns Clinic
 St. Joseph
 216 St. Joseph Sanitarium
 Sturgis
 182 Sturgis Memorial Hospital
 Traverse City
 62 Traverse City State Hospital
 Wahjamega
 243 Mich. State Hospital for Epileptics
 Wyandotte
 63 Wyandotte General Hospital
 Ypsilanti
 150 Ypsilanti State Hospital

IN MEMORIAM

Frank S. Bachelder, M.D.

Dr. Frank S. Bachelder, of Pontiac, died on July 17, 1939, after a ten-day illness. A graduate of the University of Michigan, Dr. Bachelder was a former professor of biology at Drake University. From 1912 to 1924, he served as assistant superintendent of the Pontiac State Hospital. He was attached to the Army Medical Service during the World War and was stationed at Fort Sheridan. Dr. Bachelder was a member of the Detroit Neurological Society, the Oakland County Medical Society, the Michigan State Medical Society, and was also a Mason. Surviving are his wife, Dr. Bertha Bachelder; a daughter, Mrs. Susan Hitrovo; three sons, Nathan, Frank and Peter, of Pontiac; and two brothers, Herman and Cale.

Dr. J. A. Bates

Dr. James A. Bates, a prominent member of the Hillsdale County Medical Society, died on May 17, 1939. Dr. Bates had been in active practice in Camden, Michigan, until a few days before his death. He was born in 1866 in Columbia, Ohio, the son of Dr. Orson Bates. With the exception of two years spent in Cambria, Dr. Bates had lived in Camden most of his life. He is survived by his wife, Elizabeth Palmer Bates, six children, six grandchildren and two sisters.

Dr. Jay O. Spinning

Dr. Jay O. Spinning of Litchfield, Michigan, passed away at the age of eighty-six, on May 29, 1939. Dr. Spinning was born in New York State in 1853 and was a graduate of the Hahnemann Medical College, Philadelphia, Pennsylvania. He practiced medicine in Litchfield for sixty-three years. He leaves his wife, Lou, and three nephews, Ralph Spinning of Birmingham, Herbert Spinning of Batavia, New York, and Henry Pratt of Detroit.

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General News and Announcements

The 100 Per Cent Club of the Michigan State Medical Society

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Houghton-Baraga-Keweenaw
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Jackson
Lapeer
Livingston
Luce
Manistee
Mecosta-Osceola-Lake
Menominee
Midland
Muskegon
Newaygo
O.M.C.O.R.O.
Oceana
Ontonagon
Ottawa
St. Clair
St. Joseph
Shiawassee
Tuscola
Wexford-Kalkaska-Missaukee

Other County Medical Societies are near the 100 per cent mark—being out of the honorary club by just one or two members not having paid 1939 dues. Help your society to be in the 100 Per Cent Club.

E. A. Wittwer, M.D., Bay City, has been appointed to the Medical Legal Defense Committee of the Michigan State Medical Society.

* * *

Young physician is interested in obtaining a private practice or assistantship with established practitioner. Write H. K., 2020 Olds Tower, Lansing.

* * *

Dr. Clark D. Brooks of Detroit has been appointed member of the Detroit Board of Education to serve the unexpired term of the late Dr. Angus McLean.

* * *

News of the sudden passing of Alex. J. McKenzie, M.D., of Port Huron, on July 19, on board his yacht while on a cruise to Georgian Bay, has just been received.

* * *

"*Hemochromatosis*" is the title of an article appearing in the *Journal of the American Medical Association* under date of June 24, 1939, written by C. H. Binford, M.D., and W. E. Sharpe, Jr., M.D., of Detroit.

* * *

The 18th Annual Scientific and Clinical Sessions of the American Congress of Physical Therapy will

be held September 5-8, 1939, at the Hotel Pennsylvania, New York City. Preceding these sessions the Congress will conduct an intensive instruction seminar in physical therapy for physicians and technicians August 30 to September 2.

* * *

Young, married doctor desires a suitable location in a town of 10,000 to 15,000 either in a deceased doctor's office, partnership, or willing to buy practice if price and terms are reasonable. Write P.R., 2020 Olds Tower, Lansing.

* * *

The June meeting of the Berrien and Cass County Medical Societies was held at Dewey Lake on June 8th, with the Cass Society as hosts. S. W. Becker, M.D., gave an interesting and enlightening talk on "The More Common Skin Conditions."

* * *

The St. Clair County Medical Society met at the Hotel Harrington in Port Huron on May 23. The program consisted of a round table discussion of "Vitamins" led by Drs. Ralph M. Burke, Douglas Treadgold and A. L. Zemmer, all of Port Huron.

* * *

L. A. Seeley, M.D., of the National Institute of Health, Washington, D. C., was a visitor in the Executive Offices of the Michigan State Medical Society on July 13. The main activity of the National Institute of Health is cancer research and education.

* * *

Burt R. Shurly, M.D., Detroit, will be guest of honor at the annual meeting of the American Academy of Ophthalmology and Otolaryngology in Chicago next October 8-14. Selection for this distinction is considered the highest honor in the gift of the Academy.

* * *

Correction! "A. E. Anderson," listed as Chairman of the Committee on Maternal Health of the Dickinson-Iron County Medical Society on page 553 of the July issue of THE JOURNAL should be "E. B. Andersen." We are sorry this typographical error occurred.

* * *

A special meeting on "Medical Service Problems" will be held Sunday, September 17, 1939, at 8:30 p. m. in the Ballroom of the Pantlind Hotel, Grand Rapids. All members and Delegates of the Michigan State Medical Society are invited and urged to attend this session at which Group Medical Care Plans, Welfare, and the Afflicted-Crippled Children Laws will be discussed.

* * *

A "State Society Night" for the upper section of the lower Peninsula, sponsored by the O.M.C.O. R.O. County Medical Medical Society was held at the Northern Michigan Tuberculosis Sanatorium, Gaylord, Mich., May 26, 1939, at 6 p. m. Following the dinner, Dr. P. R. Urmston, Bay City, Councilor of the 10th District, introduced Dr. E. J. O'Brien, Detroit, who spoke on the "Surgical Treatment or Management of Pulmonary Tuberculosis," which was thoroughly enjoyed by the forty or fifty doctors present.

GENERAL NEWS AND ANNOUNCEMENTS

Doctor, register at each booth in the Grand Rapids Convention and Exhibition. The exhibitors are anxious to coöperate with you in helping us put on a Convention second to none among State Medical Societies. They deserve the opportunity of meeting you and showing you what they have that is new and better in the field of medical supplies and equipment. They will appreciate your registering at their booth. Save an order for the M.S.M.S. Exhibitor.

* * *

Honorary, Retired, Emeritus and Association Membership in the M.S.M.S.: Please certify to the Executive Office, 2020 Olds Tower, Lansing, at least thirty days in advance of the Annual Meeting (no later than August 19), the names of any of your members for whom Special Memberships in the State Society will be sought next September. The membership records of physicians recommended by county medical societies for special memberships must be checked before final submission to the House of Delegates.

* * *

Afflicted and Crippled Child Commitments for June, 1939—Afflicted Child: Total cases 1,103, of which 186 were sent to University Hospital and 917 to miscellaneous hospitals. From the above 147 were committed from Wayne County, 18 going to University Hospital and 129 to miscellaneous hospitals.

Crippled Child: Total cases 1,214, of which 343 were sent to University Hospital and 871 to miscellaneous hospitals. From the above 24 were committed from Wayne County, 3 going to University Hospital and 21 to miscellaneous hospitals.

* * *

The Tenth Annual Golf Tournament of the Wayne County Medical Society will be held at the Oakland Hills Country Club, just west of Redford Road on Maple Road, outskirts of Birmingham, Wednesday, August 23, 1939. The hours for teeing off are from 9:00 a. m. to 3:00 p. m. The day's play will be climaxed with a dinner, entertainment and distribution of prizes. All members of the Michigan State Medical Society are cordially invited to participate and try for one of the many fine prizes offered. Tickets are \$5.00 including golf, dinner, entertainment and prizes, and may be procured at the club on tournament day.

* * *

"You Can End This Sorrow" is the title of a compact statement of the problem of congenital syphilis for the layman. Accompanying the leaflet is the statement, "Every syphilitic baby is a failure of maternal education. The extent of that failure is indicated by the fact that last year it is estimated 60,000 babies were born with syphilis in addition to 25,000 stillbirths. At least half of these syphilitic births and deaths were unnecessary." The leaflet emphasizes the importance of early examination and treatment in every pregnancy. Copies of the pamphlet are available for one dollar per hundred copies from the Superintendent of Documents, Washington, D. C.

* * *

Dr. Raymond B. Allen, who for the past three years has been dean of the Medical Department of Wayne University, has resigned to accept the position of executive dean of the Chicago Colleges of the University of Illinois to enter upon his work in Chicago on September 1st. Dr. Allen's new position will be coördinator of the Colleges of Medicine, Dentistry and Pharmacy of the University of Illi-

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nois. Dr. Allen will be greatly missed in Detroit, where during his three years there, he fairly revolutionized medical education. During this period, according to the council on medical education, Wayne University Medical School has made greater progress than any other medical school in the country.

* * *

At the recent examinations held by the American Board of Obstetrics and Gynecology at St. Louis, Mo., on May 13, 14, 15, and 16, 1939, 228 candidates were certified. The following successful candidates are from Michigan: George H. Agnew, M.D., Detroit; Russell W. Alles, M.D., Detroit; Lester E. Bauer, M.D., Detroit; Albert E. Catherwood, M.D., Detroit; Harrison S. Collisi, M.D., Grand Rapids; Hampton P. Cushman, M.D., Detroit; Clair E. Folsome, M.D., Ann Arbor; Owen C. Foster, M.D., Detroit; Harold A. Furlong, M.D., Pontiac; James L. Gillard, M.D., Muskegon; Harold Henderson, M.D., Detroit; W. Bede Mitchell, M.D., Detroit; John P. Ottoway, M.D., Detroit; Harry A. Pearse, M.D., Detroit; Roger S. Siddall, M.D., Detroit; Loren C. Spademan, M.D., Detroit; and A. Kenneth Stolpman, M.D., Birmingham.

* * *

A.M.A. INDICTMENT QUASHED!

Justice James M. Proctor, upholding a defense demurrer to indictments, ruled on July 26 that the American Medical Association and its fellow defendants were not engaged in a trade as defined by the antimonopoly statutes. Counsel for the doctors had contended their activities could not be governed by the Antitrust Law, that they were engaged in a "learned profession" rather than a trade. On December 20, 1938, a District of Columbia Grand Jury, acting on evidence presented by the Justice Department, indicted the American Medical Association, the Medical Society of the District of Columbia, the Washington Academy of Surgery, the Harris County (Texas) Medical Society and twenty-one individual physicians for violation of the Sherman Antitrust Law. These organizations and individuals, the indictment read, were "engaged in a continuing combination in conspiracy in restraint" of trade in hampering the activities of Group Health Association, Inc., for the District of Columbia, an organization established in 1937 to hire physicians and nurses and provide hospital care on a cooperative basis to government employees. Defense attorneys had contended that all their clients' activities were directed solely at the maintenance of the ethics and standards of the profession.

At the headquarters of the Association, officials, including Dr. Olin West, Secretary, and Dr. Morris Fishbein, Editor, said:

"The principles and policies of the American Medical Association do not forbid nor have they ever contemplated any opposition to a well considered expanded program of medical service, when the need can be established; neither is there any fundamental principle or policy which in any manner opposes aid to the indigent when indigence can be established.

"The American Medical Association has always welcomed investigation by any authorized agency of the nature of its organization or of the conduct of its work or of its activities, firmly reliant in the belief that every action taken by the Association has been in accordance with its constitutional organization in the interests of the public welfare for advancing standards and quality of medical service for the American people; and that at no time has it violated the established law of the federal, state, or municipal governments of this country. Moreover, by the very nature of its organization, it has preserved constantly the democratic principles on which the Government of the United States is founded and maintained."

Michigan's Health Commissioner

Henry Allen Moyer, M.D., of Charlotte, was appointed by Governor Dickinson to the office of State Health Commissioner effective August 1st. Dr. Moyer comes to this important office with the good wishes of the physicians of the state, who have offered him all coöperation in the administration of the State Department of Health.



HENRY ALLEN MOYER, M.D.

Dr. Moyer was born in Eaton County about eight miles from Charlotte, April 12, 1876. He graduated in medicine from Detroit College of Medicine (Wayne University) in 1901, and entered private practice in Charlotte, majoring in surgery. Dr. Moyer has been continually progressive in postgraduate work, making it a rule through the years to be absent from his practice one month of each year doing postgraduate research.

The new State Health Commissioner was Health Officer of the City of Charlotte for four years, and County Health Officer for four years. He was honored by his medical confreres by being elected president of the Eaton County Medical Society, in which capacity he served for two and one-half years, 1936-1937-1938.

Dr. Moyer is married and lives in Charlotte. His daughter is the wife of B. P. Brown, M.D.,

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of Charlotte, who has been associated with Dr. Moyer for three years.

Dr. Moyer's hobbies are Public Health and Preventive Medicine; he has made a study of public health for many years. He is also interested in botany; his flower garden in Charlotte is the admiration and envy of all his friends.

He is a member of the Nu Sigma Nu Fraternity; life member of Blue Lodge, Charlotte, No. 120, has been through all the chairs of the Blue Lodge in the Commandery; life member of DeWitt Clinton Consistory and the Saladin Shrine in Grand Rapids.

* * *

Wayne County Maternal Health

The new Committee on Maternal Health of the Wayne County Medical Society is as follows. This committee succeeds the committee for Wayne County which was listed in the July JOURNAL:

Dr. S. Owen Foster, Chairman, Dr. R. W. Alles, Dr. Raymond B. Baer, Dr. M. E. Danforth, Dr. M. A. Darling, Dr. E. A. Duffy, Dr. E. W. Fitzgerald, Dr. Harry M. Nelson, Dr. A. K. Northrup, Dr. H. A. Reye, Dr. E. D. Rothman, and Dr. H. S. Siddall. All members are from Detroit

* * *

Remember Your Grand Rapids Convention! The Committee on Scientific Work has arranged a most outstanding scientific program for you. More than 70 eminent teachers are preparing papers for presentation in Grand Rapids next month. One hundred exhibits are being arranged for your convenience and enjoyment. Don't miss the Grand Rapids Convention, September 19, 20, 21, 22, 1939.

* * *

Our own experience is that it is no use to tell anybody our own experience because they will not be satisfied until they get their own.

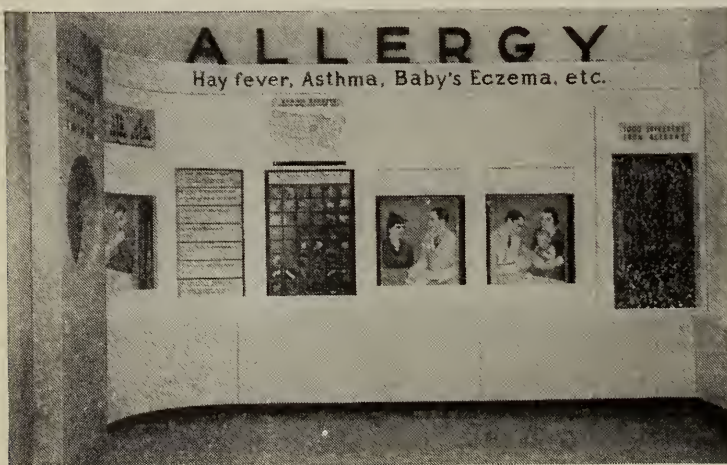
Among Our Contributors

Dr. Frances L. MacCraken received her A.B. degree from Albion College in 1917 and was graduated in medicine from Wayne University College of Medicine in 1921. She has since pursued work at the Alexander Blain Hospital, Harvard Medical College and New York Post Graduate. Dr. MacCraken served ten years as Medical Examiner of Women for the Board of Education of Detroit and is at present Assistant Professor of Therapeutics at Wayne University and a member of the attending Ophthalmological staff of Shurly Hospital.

* * *

Dr. Earl E. Kleinschmidt is a graduate of the University of Michigan Medical School, 1930. He interned at the University Hospital at Ann Arbor in the Department of Internal Medicine, and in 1936, following three years of private practice, he received his doctorate in public health from the University of Michigan, and since then has been a member of the Staff of the Division of Hygiene and Public Health at the University of Michigan. He is a Diplomate of the National Board of Medical Examiners. At present he is Assistant Professor of Public Health and Preventive Medicine.

The Time is Out of Joint.—An Englishman walking in the Highlands entered a farmhouse to ask the time. Noticing an old grandfather clock, he said: "Your clock is surely wrong." "Naething wrong wi' it," answered the farmer. "It's you that doesna' understand it. When the wee haun's straight up, and the big haun's straight doon, it strikes ten; but the richt time's five o'clock. After that," he continued, "ye've naething to do but calculate."



Lederle's exhibit on Allergy at the New York World's Fair tells in changing dramatic sequences, three two-minute dramas of Allergy: "Tommy Todd's Autumn 'Colds'", "Mrs. Tucker's Wheezes" and "Baby Bing's Eczema." By means of an animated question box and dioramas showing typical scenes in the doctor's office, a search for the offending allergic excitant in each of the three stories is conducted through information obtained by questions, scratch tests and an examination of the patient's family tree. An interesting part of the allergy exhibit is an illuminated transparency chart showing in full color, forty-eight of the most common allergic excitants.



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OPPORTUNITIES FOR CONTINUOUS MEDICAL EDUCATION IN WAYNE COUNTY*

RAYMOND B. ALLEN, M.D.

Dean, Wayne University College of Medicine

DETROIT, MICHIGAN

The Wayne County Medical Society is well known as an energetic, progressive organization which rightly prides itself on looking problems in the face and doing something about them. The recent activity of the Society in the field of postgraduate medical education is a good example. Your incoming President, Doctor Ralph H. Pino, has studied the problem and come forward with some thoughtful recommendations which are in your hands. You have learned tonight that there has been gratifying response to their proposal that the local hospitals, beginning with Receiving Hospital, organize courses of clinical instruction in the wards and out-patient departments for practicing physicians. It seems to me that this plan points the way to the only practical solution of the important problem of providing opportunities for the busy physician to keep abreast of medical progress. I would not suggest that courses of lectures, clinics, and conferences already established be discarded. These forms of medical education fulfil important functions. As in under-graduate education, so in post-graduate education, we recognize, however, that the close association of student and patient is the primary essential in any well-balanced program of medical education. This presupposes, of course, that there is real desire on the part of the physician to continue his professional development by continuous study. (In the under-graduate schools, therefore, we are endeavoring by every possible means to develop habits of study and scientific viewpoints which will endure throughout professional life.) Critical observers have pointed out that the physicians who need educational

opportunities the most are usually the least likely to take advantage of the instruction which is available. This, of course, is the reverse of saying that good students and good doctors are able to pretty well look out for themselves and search out opportunities for study and self-improvement. As in all higher learning, self-education is the best approach to adult education in Medicine. Unless there is curiosity, creative instinct, and enthusiasm for study and self-improvement, what the Wayne County Medical Society, Wayne University and the University of Michigan do about it will be of little avail. Fortunately, in Detroit and Michigan, there is evidence that the demand for opportunities for continued medical education arises from real interest and enthusiasm on the part of the medical profession.

Now, then, how are opportunities being developed to meet this demand?

They are legion. Recently I had occasion to enumerate the organized medical societies of Wayne County. I will not take time to read them, for they number twenty-eight,

*Read before the annual meeting of the Wayne County Medical Society, May 15, 1939.

and hospital societies and journal clubs are not included:

Alumni Association of Wayne University
 College of Medicine
 American Urological Society (Detroit Branch)
 Blackwell Medical Society
 Dearborn Medical Society
 Detroit Academy of Medicine
 Detroit Academy of Surgery
 Detroit Dermatological Society
 Detroit Medical Club
 Detroit Medical Society
 Detroit Diabetes Association
 Detroit Ophthalmological Association
 Detroit Otolaryngological Association
 Detroit Pediatric Society
 Detroit Physiological Society
 Detroit Roentgen Ray and Radium Society
 Detroit Society of Neurologists and Psychiatrists
 East Side Medical Society
 Grosse Pointe Medical Club
 Highland Park Medical Society
 Medical and Dental Arts Club of Detroit
 Medical History Club
 Miamonides Medical Club
 Michigan Orthopedic Society
 Michigan Society of Obstetricians and Gynecologists
 Noon Day Study Club
 Wayne County Medical Society
 Wayne County Seniors
 West Side Medical Society

These societies represent general medicine and the specialties. They are all well organized. The primary purpose of each organization is the professional improvement of its members. This is, of course, the distinguishing characteristic of medical societies generally. From the beginning, medical societies have been interested in medical education. It was not until our generation, however, that their interest in post-graduate education became dominant over their interest in under-graduate education. The activity of the Council on Medical Education and Hospitals of the American Medical Association in the field of graduate education has been expanded greatly in recent years. The interest of the entire profession, medical schools, and hospitals, crystallized two years ago in the form of the Commission on Graduate Medical Education, which is now completing its studies and from which we may look for an epoch-making report.

I refer to the activities of societies at some length for the very good reason that it is through these agencies that opportunities for continuous medical education in Wayne County have been and are being developed to such a gratifying degree. The coöperative activities of the Michigan State Medical Society, the University of Michigan and Wayne University in the field

of postgraduate medical education, under the leadership of Doctor James D. Bruce of the University of Michigan, have been conspicuously successful and have attracted wide attention. The Autumn and Spring graduate conferences sponsored by the Detroit Department of Health, in co-operation with the universities and the medical societies, are other excellent examples of what can be accomplished in the educational field by men of good will who represent several organizations.

But I must hurry on, for we have really just begun our exploration of postgraduate medical education in Wayne County. Let us turn to the hospitals next. In Wayne County there are ten hospitals which are organized on a sufficiently high educational plane to be approved for the training of internes. They comprise 5,454 beds. These hospitals have organized staffs and hold regular staff meetings, clinical pathological conferences and annual reunion clinics and also boast good working libraries—all for the purpose of providing educational opportunities for the attending and resident staffs and alumni. We are hearing more these days about the educational opportunities of the internship and residency, and we are rightly being told that the staff of the hospital constitutes a Faculty of Medicine whose responsibility it is to provide adequate educational opportunities and guidance for the internes and residents. The emphasis is rapidly shifting from the idea of an internship as purely an apprenticeship for practice to the idea of the internship as an integral and important part of the educational experience of the medical student. This trend, it is to be hoped, will lead to more opportunities for study of the medical sciences in the laboratories, seminars, journal clubs and conferences. I point this out to indicate that the teaching responsibilities of the attending staff are being multiplied. The adequate discharge of these responsibilities requires diligent study and preparation on the part of the members of the staff. Opportunities in Wayne County for the organization of educational programs on a high level in the hospitals are unexcelled. Membership on hospital staffs is highly competitive and many practicing physicians do not win such appointments. Through the medium of outpatient department appointments and such formal teaching opportunities as may be in-

augurated by the Society, better opportunities will be provided for this neglected group. It is through such experience that physicians in general practice can secure training in areas of their special interest and aptitude. With the development of high standards of qualification for the practice of the clinical specialties, it is increasingly difficult for the general practitioner to become adequately prepared in a specialty without having residency and fellowship training. This is particularly true in the case of the surgical specialties in which, as everyone realizes, scientific and professional training over a period of years is necessary. In the field of general internal medicine, and some of the medical specialties, on the other hand, it is possible for the general practitioner to explore an area of particular interest and by dint of hard work and study over many years become well qualified as an expert.

The great unsolved problem of postgraduate medical education is to provide adequate outlet for the energies, aptitudes, and ambitions of the general practitioner. In an earlier day he could, and often did, gradually limit his practice to surgical or medical specialties. The door to the surgical specialties is probably closed to him in the future, but some doors must be kept open for the advancement of the serious promising students who begin their professional careers as general practitioners.

A word about the medical library. Our hospitals have developed excellent small working libraries for their attending and resident staffs. Our County Society, through the good offices of the Chairman of the Library Committee, Doctor Lawrence Reynolds, is stimulating great interest in the development and future of our medical library. We have a library of which we are proud, but it falls short of being as complete as it should be for a metropolitan center such as Detroit. Undoubtedly through the united efforts of the Wayne County Medical Society, the specialty societies, the Library Commission of Detroit and Wayne University we can develop the library to a point where it will compare favorably with the great medical libraries of the country. The library is the cornerstone of the fine edifice of modern medical science; without it the whole structure would collapse. The best doctor is usually he who leans heavily

on the current and historical literature dealing with the problems of medical practice which come up from day to day. Many members of our Society appreciate and use the splendid services of the library and its staff.

This report would be incomplete if the lowly curbstone were not mentioned. He is a rare specialist who does not spend some time in informal, gratuitous "curbstone" consultations with his colleagues in the discussion of difficult cases. Such consultations have great educational value, for they serve to direct attention to new lines of inquiry and perhaps open up completely new viewpoints.

Educational influences play a rôle in the every-day problem of case study. Any case may present a problem which requires special study. Through the services of consultants and the intelligent use of libraries—particularly the current medical journals—it is possible for the studious, conscientious physician to continue his medical education within the confines of his own practice. This is the hard way of keeping abreast of progress but it is perhaps the best way. The physician who ferrets out knowledge for himself is not likely to soon forget what he learns.

Wayne University College of Medicine, while preoccupied with the development of its program of under-graduate medical education and long-term graduate training in the clinical specialties, has nevertheless found the leadership and facilities to organize and offer courses for practicing physicians. Such courses include general Internal Medicine, Dermatology and Syphilology, Newer Therapeutics, the Tumor Clinic, Clinical Pathological Conferences, Ward Rounds, Ophthalmology, Anatomy, Pathology, and seminars in Physiological Chemistry and Physiology. Enrollment in some courses has been limited by the crowded condition of the laboratories. The policy, however, is to provide every possible opportunity for the serious student of Medicine to continue his study of the underlying medical sciences and to follow up studies in those clinical fields in which he has secured adequate basic training. In addition to these formal courses, the Alumni Association of the college offers a well-planned program of postgraduate instruction on practical subjects in the form of the annual Detroit Clin-

ics—at which members of the State and County Medical Society are cordially welcomed.

To round out consideration of the opportunities for postgraduate education in Wayne County, reference should be made to the splendid facilities for adult education in the liberal arts. The physician today, as yesterday and tomorrow, must be a cultured gentleman as well as a doctor. One of the weaknesses of modern medical education is that it is largely technical and professional in its discipline. Distinguished educators have repeatedly pointed out that the price of specialization may be narrowness of viewpoint. Fortunately, in Wayne County we have exceptional opportunities for continuing our cultural as well as our medical education. The Art Institute (where we meet each week), the theater, the library, the universities, the church (where some of us are seen occasionally), numerous cultural

clubs and societies, the Detroit Symphony Orchestra, our own orchestra and glee club—not forgetting the Michigan waterways, and varied fauna and flora, nor the golf links (where most of us are seen frequently)—may be mentioned as cultural and recreational influences which physicians support and develop as well as benefit from in their busy day.

* * *

The man whose life we commemorate tonight—Doctor George E. McKean—exemplified throughout his entire teaching and professional career the finest qualities of a well-rounded personality. His influence on the lives of the people who knew him was indelible. It is perhaps significant that his interests and culture were not limited by the boundaries of the profession which he served with such great distinction. George Edwin McKean achieved the immortality of good works.

CONGENITAL DISLOCATION OF THE HIP*

F. C. KIDNER, M.D.

DETROIT, MICHIGAN

Some twenty-two years ago I told a visitor to my clinic, that, during the preceding few years, I had reduced successfully, by closed manipulation, all the cases of congenital dislocation of the hip, in children under three years of age, that had come to the clinic. If the requirements for successful reduction are that the head of the femur be brought opposite the acetabulum in a position of some stability and that this position be maintained during the period of plaster fixation, the statement was true. If the requirements are that the head be deeply seated in a competent acetabulum and remain so after the removal of the plaster, the statement was untrue. The difference between these two sets of requirements has been since the earliest attempts at reduction, and is today, the source of all disagreements as to the best method of treatment.

Historical Résumé

Congenital dislocation was recognized in the Hippocratic writings four centuries before the beginning of the Christian era. Its peculiar gait was described in them and reduction by means of longitudinal traction was advised, albeit without success. It was not until the early part of the nineteenth century when Dupuytren (1826) in France made his remarkable studies, that the anat-

omy and pathology of the condition were clearly described. In the intervening two thousand years the Hippocratic longitudinal traction remained the only recognized method of treatment, and failed so dismally that in Duyuptren's time congenital dislocation was looked upon as an incurable condition. His clear description immediately aroused new interest in the subject and knowledge of it spread over Europe with the result that in the next twenty years Humbert and Jacquier, Bouvier, Pravaz and Guerin all presented methods of manipulation. In 1850, Carnochan of Savannah published the first American article on the subject. None of these men produced a method which was widely successful, but together they built up the groundwork of knowledge and experience which made possible the develop-

*This was the Sir Robert Jones Memorial Lecture presented at the Hospital for Bone and Joint Disease, New York City, February 24, 1938.

ments which occurred in the last two decades of the nineteenth century. In 1880, Paci of Italy published the first manipulative procedure which was based sufficiently soundly on pathological anatomy to offer promise of a large percentage of successful reductions. Many of his ideas were incorporated in the brilliant and startling announcement by Lorenz in 1895 of his "bloodless surgery" for the reduction of the dislocation by forcible manipulative measures. His work commanded immediate worldwide attention and provided the foundation of the improved methods which we know today. Because it was better advertised it overshadowed the work of Bradford, Ridlon and others, who with different technics during the 1890's sought, often successfully, to obtain reduction by forcible manipulation. For Lorenz's method was essentially a method of force. He believed that only by the use of great manual force could he stretch the muscles, fascia and capsule so that the head could be made to enter the acetabulum deeply enough to form a stable joint. He depended on the great strength of his hands to gain this result, whereas Bradford used a machine by which the mechanical force required could be better directed and controlled. I well remember while I was in the medical school, the occasion in 1901 or 1902 when Lorenz stopped at the Children's Hospital in Boston, to demonstrate his method at the invitation of the staff of that institution. He was on his way to Chicago to operate on a certain internationally famous case. Although I did not see the demonstration, it was vividly described to me by those who did. It must have been a dramatic spectacle. If subcutaneous hemorrhage following the manipulation was any indication, the procedure was not so "bloodless" as we had been led to believe. The traumatism to soft tissue was tremendous and there must have been besides a considerable degree of damage to the epiphysis of the head and to the walls of the acetabulum which was deleterious to their normal development. From that time on, there arose a hue and cry, led by John Ridlon of Chicago, against these strong arm methods. Ridlon maintained that if great force with its attendant damage to soft parts and cartilage was necessary to obtain reduction, then, often, the resulting deformities of the joint, brought about by irregular bone growth and arthritis would be so great

that the joint would be no more useful than it would have been had it been left alone. He, therefore, set himself to develop a method in which gentleness, delicacy of touch, and supreme guile should take the place of brute force in outwitting the resistance of the contracted and abnormal structures of the ailing hip. He was eminently successful in doing so, as any one who has seen him "wheedle" the femoral head into the acetabulum will freely testify. Davis of Philadelphia and Brackett of Boston in this country, Hoffa in Germany and Denuce in France, along with many others, ably seconded Ridlon in this campaign for gentleness, so that now I believe it to be the generally accepted doctrine that any hip which cannot be reduced by gentle manipulation should be reduced by open surgical operation. Most men agree that gentle manipulation is unavailing after the patient has reached four years of age. I, for one, place the age limit considerably lower than that except in occasional cases.

So far, we have confined our historical discussion to the closed reduction. A little now about open surgical reduction. We shall not consider, in this paper, the many surgical procedures aimed at the amelioration of symptoms in old irreducible hips. In 1880, Poggi deepened the acetabulum and replaced the head in it through an anterior incision. In 1890, Hoffa described an improvement of Poggi's operation. Lorenz by 1895 had developed a technic for open reduction. Bradford, in 1900 resected the whole capsule in order to get the head into the acetabulum. Because of the supposed dangers of the open operation and the publicity given to the "bloodless" methods, it fell into disrepute and was relegated to the position of a last resort when all other methods had failed. This, of course, was unfair and still further served to besmirch the fair name of the open procedures for the reason that it could rarely succeed when carried out on a hip whose tissues had already been damaged and scarred by repeated more or less forcible manipulation and long periods of fixation. It was not until Sherman of San Francisco, in 1913, published a series of twenty-three successful open operations that interest was revived. In 1920, Galloway of Winnipeg, a still small voice crying in the wilderness, dared to face the storm of the repeatedly extolled virtues of closed reduction, in an

article describing a beautifully designed operation. The operation was simple and quick, it did not traumatize the delicate tissues of the youngest child and it offered the opportunity safely to remove the various obstructions to the entry of the head into the acetabulum, under the eye of the operator. Those obstructions had to be overcome blindly by the closed method. Galloway said justly that his operation was no more dangerous than closed reduction and that it was much more efficient, and, heresy of heresies, it should be used as the method of choice even in the youngest children. Galloway came to my clinic and did his operation, and I was converted to the open operation. My conversion is still effective as my publications and my frequently irritating and tiresome word of mouth diatribes, convincingly prove. It is easier to fulfill the requirements for successful reduction stated in my introduction by means of open operation than by closed manipulation.

Causes of Congenital Dislocation

In spite of the theories advanced by numerous authors since the time of Hippocrates, the fundamental cause of this condition is still far from clear. In the main, the theories are divided in two classes. The first of these assumes that the dislocation occurs in normal joints, either during intrauterine life because of gradual stretching of the joint capsule, the result of faulty position of the embryo, or from trauma at the time of birth, or from trauma sustained during the early months of extrauterine life. The second assumes that there is a basic failure of normal development in the cells of the embryo which enter into the formation of the bones which will form the acetabulum. As a result, the roof and posterior wall of the acetabulum are shelving and weak and allow the head of the femur easily to escape.

The first theory has little to support it. Dislocations of other joints during intrauterine life are rare and occur in exposed joints such as the knees, whose motions are in one plane. It is difficult to conceive that the normal hip, a joint which has motion in all directions, could be dislocated by any stress due to position alone. That a dislocation of a normal hip might occur during passage through the birth canal is conceivable, but the usual result of strains put on the skeleton during parturition is fracture, not dislocation. Injury during the first few months

of life would have to be very severe to dislocate a normal hip. We must then accept the second hypothesis, that of congenital malformation of the structures which form the acetabulum, as the fundamental explanation of congenital dislocation. As yet, no wholly convincing theory has been advanced to explain the frequency of such malformations of the hip. Kanavel's theory of intrauterine injury or infection of the cell groups or beds which develop into the various parts of the extremities, by which he explains their congenital absence or multiplication, provides an interesting field for speculation as regards the hip joint. Murk Jansen's theory of inherited "feebleness of bone" is beautifully worked out, and gains its best support from the frequency of congenital dislocation as a familial disorder. Hage-lund's theory of unbalanced muscle pull which leads to atrophy of the roof of the acetabulum because of undue pressure is fascinating and conceivable. Whatever the cause of the malformation we are confronted with certain anatomical changes which are demonstrated by dissection, by operation and by x-ray examination.

Anatomy

The anatomical changes in the acetabulum vary greatly in individual cases. The simplest form is a flattening of the superior border which gives the roof an oblique rather than a transverse direction, thus opposing to the head of the femur a sort of skidway on which it can move up and down. In the normal hip this skidway is absent and a transverse buttress is in solid contact with the head. In the more complicated forms the roof is entirely absent and merges imperceptibly into the ilium. Other changes in the acetabulum include a narrowing of the anteroposterior diameter, which results from improper development of the pubic and ischial epiphyses. Unfortunately, it is impossible to demonstrate these changes in the acetabulum, accurately, by means of the x-ray. To these abnormalities of development of the acetabulum are directly due the changes of shape and size of the head and neck of the femur because the head is without its normal support. Secondly, the pull of the muscles acting on the dislocated femur influence the form of its upper end. These two forces acting together often produce complete disparity between the acetabulum and the head, in which case reduction

by closed manipulation is manifestly impossible. How great this disparity is can be evaluated only by direct examination at operation or on the dissecting table. Physical examination from without can demonstrate only the grosser forms. Because most

Pathological changes in the muscles and fascia around a dislocated hip in children under four years of age are, I believe, more fancied than real. They are really not pathological at all and are not fixed, but are adaptive changes of the highly elastic tis-

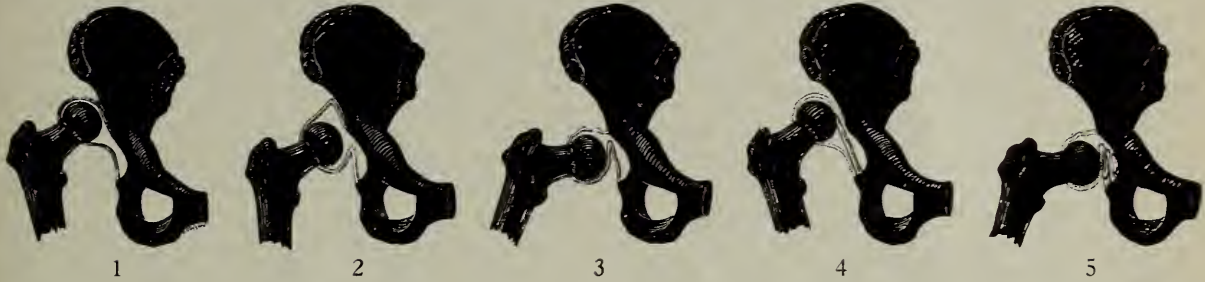


Fig. 1.—High hip, adherent capsule. Fig. 2.—Descent of head limited by adherent capsule. Fig. 3.—Capsule free, head descends, lower limb of capsule blocks acetabulum. Fig. 4.—Hypertrophied round ligament, toboggan-slide roof. Fig. 5.—Acetabulum filled by round ligament and capsule.

of the head in these young cases is cartilaginous the x-ray is of as little value in determining its shape as it is in determining that of the acetabulum. The pull of the muscles determines also whether the dislocated head is low or high, anterior or posterior, and whether or not the neck is anteverted, in valgus or in varus.

The changes in the capsule of the dislocated joint are very considerable. The classic description of the "hour glass" contraction of the capsule I believe to be inaccurate. The real changes are simpler but no less efficient as an obstruction to reduction.

As the head of the dislocated femur ascends above the acetabulum under the pull, principally, of the gluteus medius, the upper half of the capsule attached to the upper surface of the neck and the upper border of the acetabulum, is stretched upward. Thus, it encircles the upper hemisphere of the head and lies in contact with the lateral surface of the ilium. To this it adheres. In the older cases the portion adherent to the ilium is worn through, leaving the head in direct contact with the ilium. The lower half of the capsule which attaches to the lower part of the neck and to the lower border of the acetabulum is stretched upward, as the head ascends, across the mouth of the acetabulum, which it tends to enter as a fold, thus blocking it. This fold is the structure which is usually called the hour-glass constriction. These changes, the one in the upper half and the other in the lower half of the capsule, are the most important obstructions to successful reduction in cases which have well shaped heads and acetabuli.

issues to fit changed surroundings. In older children, actual contractures of both muscles and fascia undoubtedly do occur, as the result of improper function and insufficient blood supply. Such contractures seriously interfere with reduction either by closed or open method. But in young children the muscles and fascia offer little resistance to reduction of a dislocated hip. Indeed they are our best allies in maintaining the reduction after it has been secured. They should never be manhandled as in the Lorenz procedure.

The ligamentum teres is a factor which must not be forgotten. In some cases it degenerates to a mere string, in others it shows an extraordinary degree of hypertrophy. In the former case it has little or no bearing on reduction of the dislocation. In the latter it may be so large as to fill the acetabulum and prevent the entrance of the head into it. In most cases, it has no visible blood supply. In a few, it has fair sized vessels. Experience leads me to believe that it is of no value and may be safely sacrificed.

Treatment

And now, having made our historical excursion, having had a fling at philosophical theorizing and having studied our lesson in anatomy let us turn to the treatment of congenital dislocation in a young child under three. Let us start with the clear statement that the anatomical changes in some cases are so slight that the head may be solidly and permanently reduced by the gentlest and simplest manipulation and that

a reasonable period of fixation after reduction will complete the cure. Such cases are the ones in which no secondary joint changes appear and whose owners go through life with a hip indistinguishable from the normal. They are the only perfect reduction successes. The younger the child the more frequently does this occur. Putti with his mass training of parents undoubtedly has a much larger percentage of such cases than do those of us who rarely see a patient less than fifteen months old. They provide the majority of the "excellent" results in the report of any series of cases. Unfortunately, they are relatively few. The usual case presents difficulties of greater or less degree, and the result of treatment depends directly on the success with which we overcome these difficulties.

The average congenital dislocation is first recognized by the parents when the child begins to walk. They realize that something is wrong with the child's gait. Often they attribute this to the natural clumsiness of the child, and unfortunately the family physician frequently encourages them in this error, so that expert advice is not sought for many months. On the other hand, pediatricians are awakening to the frequency of the condition and are recognizing it more and more frequently even before the walking stage.

Sooner or later, the child is brought to the orthopedic surgeon, whose first duty is to give the parents a fair statement of the probable outcome of the case. In my experience it is unwise to make this statement very optimistic. It should be so worded that the parents will realize from the start that the lesion is a serious one and that treatment will of necessity be prolonged and possibly beset with disappointments. It should be pointed out that a hip which will function fairly well almost certainly will be obtained, but that a perfect functional result is little better than a possibility. If such an understanding between parents and surgeon is reached at the start, the way is paved for the necessary enthusiastic coöperation.

Examination of the child should give us much information as to prognosis. In general, fat children are less favorable subjects than thin ones, because palpation of the position of the head and trochanter and accurate fitting of retentive apparatus is more difficult. Anterior position of the head above the acetabulum is less favorable than a pos-

terior position, because it usually means that the roof of the acetabulum is less completely developed. A high position of the head with an inch shortening is more favorable than a low position with only a quarter to a half inch shortening; because it means that the head is completely displaced from an acetabulum which may be well formed, rather than that it is riding on the oblique or vertical roof of a badly formed acetabulum. Thus a high posterior head is more likely to stay in place if reduction is obtained than is a low anterior one. Free motion of the head in the vertical plane is encouraging because it means that the upper half of the capsule is not widely and firmly attached to the lateral wall of the acetabulum. I am convinced that this firm attachment of the capsule is the principal obstacle to downward displacement of the head when reduction is attempted. If the head feels large and persistently faces forward there is almost a certainty that the disparity between the size of the head and that of the acetabulum is so great that the head cannot be placed sufficiently deeply in the acetabulum to overcome the tendency to forward re-dislocation. X-rays which show a good horizontal bony roof are very encouraging. Those which show a slanting or absent roof are discouraging, but by no means prove that the cartilaginous roof is also incompetent. In double dislocations, one side may present many of the favorable signs just described, while the other may present many unfavorable ones. For this reason, double dislocations are less likely to result successfully than are single ones.

Let us now consider the actual reduction of the dislocation. In the cases in which the hip is very high even in young children a preliminary period of traction is of value, not because it stretches the muscles but because it stretches the capsule or may even pull it away from its attachment to the ilium. In the older cases, more than three or four years of age, it is almost a necessity whether closed or open reduction is to be undertaken, because in these cases there are true contractures of muscles and fascia which gradual stretching alone can overcome.

It is my custom in all cases, first to attempt reduction by gentle manipulation. This manipulative reduction is attempted for two reasons. The first of these is that a complete stable reduction, obtained by

gentle manipulation in which the cartilage of the head rests deeply in the acetabulum in contact with its cartilage without interposition of the soft tissues, gives the only perfect results we ever obtain. The second reason is that parents dread the open operation and are pleased by the thought that the closed method will be tried. I never allow myself to be led on in the manipulative procedure to a point where force is used because I fear too much the aberrations of growth of both head and acetabulum, which I have seen develop so often, years after forcible and apparently successful reduction. We all avoid trauma to epiphyses elsewhere in the body and know its sad results. Why then should we subject the epiphyses of the head of the femur and acetabulum to the severe trauma which is built up when we use the long lever of the femur to force the head over the posterior wall of the acetabulum. By gentle manipulation I mean, not the use of a set series of movements, but an attempt to follow the leads which the head, the capsule and the muscles themselves give to practiced hands. If by this means the head is made to slide into the socket I am momentarily happy. But then come the tests for satisfactory reduction. Is the head stable vertically? If not, the roof of the acetabulum is nothing but a toboggan slide on which the head will surely sooner or later slip upward. Can the femur be rotated in all directions through thirty or forty degrees without redislocation? If not, the acetabulum is too small for the head or there is a disparity in shape. Is there a sensation, when the head is thrust inward, that it lies against a springy cushion? If there is, then we may be certain that the lower half of the capsule lies between the cartilage of the head and that of the acetabulum, or that a hypertrophied round ligament fills part of the cavity. In either case long months of fixation must elapse before these structures atrophy. Probably they never completely disappear, but persist as fibrous tissue which somewhat reduces the depth of the socket, and in later years lead to instability, irritative changes and pain. If all these tests are negative, I am content and prepared to predict a happy outcome. If any or all of them are present we know that the head is not firmly seated in a competent acetabulum which it fits. If this be true we must resort to open

operation or content ourselves with a reduction which we know can never be more than a partial success. I am well aware that these partial successes are often perfectly satisfactory to the patient over long periods of years, but the x-rays taken of them as the years go by makes us wonder at the adaptability of human joints. It is true that where gentle manipulation fails, useful hips are sometimes obtained by more strenuous manipulation or by repeated manipulation, but such hips never approach normal.

It is I think because of the so frequent failure of closed reduction to sink the head deeply in a competent acetabulum, that the problem of anteversion and its accompanying tendency to forward subluxation has of late years attracted so much attention. Krida's invaluable work on this subject justifies fully the prominence that it has obtained. Anteversion of the neck undoubtedly is a frequent occurrence and I have seen it of such great degree, at open reduction, that the neck was so shortened that impingement of the greater or less trochanter against the side of the ilium prevented the head from entering the acetabulum to a satisfactory depth. Under such circumstances subluxation will surely occur and Krida's osteotomy to rotate the lower end of the shaft becomes necessary. On the other hand if a really firm reduction can be obtained either by the closed or open method, it has been my experience that with growth the anteversion disappears and ceases to be a problem. This is only one of the corrective changes which follow a satisfactory reduction. It is a product of regulated growth, the result of proper weight bearing, just as is the gradual development of a satisfactory roof and of a normally shaped head, which we are so glad to see as we watch the successive x-rays.

Up to this point, then, we agree that a small percentage of dislocated hips, caught early in life, have such slight abnormalities of development of the hip joint that they can be solidly and permanently reduced by gentle manipulation, but that a large percentage have so many abnormalities that they cannot be reduced solidly by any form of manipulation. The results in these latter must depend on the degree of skill employed in the secondary stages of treatment, and on the generosity of nature in building

up its defenses against deformity and redislocation.

A word now in regard to the employment of open reduction as a method to be used early rather than as a last resort. First as to the dangers. Sepsis is always with us, but fortunately rare. I have had no single case. Shock. The operation if done through a short intermuscular anterior incision is practically truly bloodless. It requires little time. Certainly it compares favorably on this score with any of the prolonged efforts at closed reduction. It affords an opportunity to see, feel and overcome the various anatomical variations which militate against satisfactory reduction. First the capsule, which as previously stated I feel to be the most common stumbling block. The adhesion of its upper portion to the lateral surface of the ilium above the acetabulum can be seen, felt and gently dissected free. This maneuver alone in the great majority of cases removes all resistance to the descent of the head. Following this step the joint is opened and the head, round ligament and acetabulum inspected. If, as is usually the case, the lower half of the capsule is tightly drawn across the mouth of the acetabulum it is split freely, exposing the whole extent of the acetabulum so that its competency can be evaluated. If the round ligament is voluminous it is removed. If the acetabulum is too small to receive the head, it can be reamed out. Usually this reaming process involves cartilage only. This latter some-

times involves residual, secondary stiffness. If the roof of the acetabulum is of the toboggan slide type, a small shelf can be turned down immediately though this is rarely necessary. When any or all of these steps have been completed, almost invariably the head can be placed deeply within the acetabulum, usually so that its whole cartilaginous surface is buried, and so that a large range of motion can be carried out in all directions without redislocation. When this has been accomplished the capsule must be repaired and sutured with strong gut. This last step is fundamentally important because it provides support for the joint during the period of muscular readjustment.

I am convinced that the problem of successful permanent reduction of congenital dislocation of the hip is not yet solved. Whatever the causes of the anatomical changes which lead to it may be, I do not know. These changes are such that closed manipulation cannot overcome them in a large percentage of cases, which come to us after eighteen months of age. It is true probably that they can be so overcome in infants, as Putti demonstrated. Let us then make a serious attempt to educate our public to the early recognition of the dislocation. Let us review our own cases and find out how many of those reduced by the closed method are really happy after ten years and let us seriously consider the advantages of open reduction.

PYOMETRITIS ASSOCIATED WITH METRO-MENORRHAGIA CLIFFORD B. LORANGER, M.D.

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Injections of large amounts of estrogenic substances have produced non-infectious pyometritis in some experimental animals, according to W. U. Gardner, H. Barrow and others. There have been no similar cases in humans recorded in the literature of the last several years.

The patient herein reported seems to be such a case. She had a pyometritis of sterile pus and had had a bilateral salpingectomy, precluding the possibility of pregnancy, abortion, or salpingitis, as causes of her condition.

On the other hand she had received persistent injections of the estrogens and had a retention cyst of the ovary, the latter also producing the follicular hormone.

On January 18, 1938, Miss V. T., (case No. 415) aged twenty-two years, presented herself, complaining of intermittent bleeding of two years duration. Menses began at fourteen years, were regular, and

lasted five or six days. The flow had always been heavy and accompanied by backache and cramps.

Her past history was as follows: She had been in good health until about four years ago, when she developed an acute appendicitis and localized peritonitis; the appendix was removed. At that time she was employed as an x-ray technician. One year ago, she had both tubes removed for "bleeding." According to the surgeon, the tubes were inflamed, but the ovaries and uterus were normal. Since the hemorrhages increased in severity another physician gave her frequent, sometimes daily, hypodermic injections of estrogen and anterior pituitary-like substance for several months. During the last two years the patient lost about 30 pounds.

Examination revealed a well developed, not acutely ill female. The essential findings of her condition were as follows: She had a doughy, generalized enlargement of her thyroid gland. She had a ductal hyperplasia of the breasts which became very tender during her menses. There was some tenderness over the gall bladder. She had a healed right rectus scar and another scar in the midline below the umbilicus. Vaginal examination revealed a normal introitus. There was some clotted blood in the fornices, and coming from the cervical os. The cervix was otherwise normal. The uterus was anti-flexed and in normal position. Both adnexal regions were tender, especially the right.

As it seemed advisable to do a hysterectomy, she was taken to the operating room on January 26, 1938. Examination under anesthesia revealed an enlargement of the right ovary; no tumor masses were felt. On passing a sound into the uterus, a few drams of white pus poured out of the cervical canal. The canal was dilated, and the uterine cavity explored with a placental forceps. No polyps or fibroid could be felt. A strip of iodoform gauze was inserted, and the patient sent back to bed. The postoperative course was afebrile, the temperature never going above 99.2. The pathologist reported the specimen consisted of pus, blood, and shreds of cervical tissue.

Progress notes:

The patient was seen in the office February 19, 1938. There was no bleeding. She has menstruated for five days beginning February 12th. She had been taking $\frac{1}{2}$ grain thyroid daily. The thyroid was much decreased in size. Patient was advised to return for further observation but she left town and could not be traced.

On October 10, 1938, she returned complaining of recurrence of her menorrhagia and metrorrhagia. Examination revealed some blood flowing from the cervical canal, the uterus was small, movable and the both adnexa tender. The blood count was red blood cells 3,000,000, hemoglobin 67%, white 11,000, polymorphonucleus 68%, temperature normal.

October 13, 1938, I performed a supracervical hysterectomy and left oophorectomy. There were many adhesions between all the pelvic structures. These were separated and the uterine fundus and the left ovary removed. The right ovary was large but otherwise normal. The left had two small retention cysts.

Recovery was satisfactory and the patient left the hospital on the tenth day.

On October 21, 1938, red blood cells 4,140,000, white 8,500, no bleeding, patient felt well.

October 26, 1938, progress satisfactory.

November 19, 1938, weight 116 $\frac{3}{4}$; blood count—red blood cells 4,140,000, white 8,500.

December 14, 1938, no bleeding.

February 3, 1939, no bleeding; felt well.

April 20, 1939, patient felt well except for "head cold." Internal examination showed freely movable cervical stump and no tenderness in pelvis.

Discussion.—The potency of the various endocrine products in use is being steadily increased. While this is an excellent thing from the viewpoint of successful therapy, it also increases the possibility of doing harm if they are improperly used.

Diagnostic curettage is a harmless procedure when carefully done and should be resorted to more frequently than at present. The optimum time for this procedure is shortly before an expected menstrual period—at that time examination of the tissue will reveal the activity of the ovary both in the production of estrone and progesterone.

With this knowledge the clinician is in a better position to judge which of the hormones, whether estrone, progesterone, anterior pituitary-like substance or testosterone should be used or if x-ray or surgery is indicated.

Summary

1. A case of pyometritis in a salpingectomized woman is reported.
2. The similarity of this case to those of pyometritis in animals receiving large doses of estrogen, and the possibility of this bring a complication to be guarded against when large doses of these hormones are used, especially where there is a retention cyst of the ovary, is pointed out.
3. The value of diagnostic curettage in uterine bleeding is emphasized.

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THE LIMITATIONS OF TRANSURETHRAL PROSTATECTOMY*

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Eight years have now elapsed since T. M. Davis made his historic presentation of modern transurethral prostatectomy with a résumé of some two hundred cases successfully operated upon. His reports, presented before the American Urological Society and the Section on Urology at the A.M.A. in 1930, made this operation for relief of urinary obstruction appear so safe, so simple and so easy on patient and surgeon alike that the method fell literally as a bombshell upon our profession. As a result of this promised Utopia of prostatic surgery a veritable gold rush took place. Probably every urologist in the North America continent joined the mad rush to obtain the necessary and not inexpensive armamentaria that promised the prostatic millennium. Many general surgeons, not averse to performing the occasional prostatectomy, found their sales resistance pleasantly weakened to the lure of agencies dispensing equipment that appeared to lead to the promised land of prostatectomy. Our surgical journals were soon filled with an avalanche of messages proclaiming the new era of safe—simple—and easy resection in a way that has been only surpassed by the recent bibliographical epidemic devoted to sulfanilamide.

Three and a half years ago the flood tide of enthusiasm had reached its crest, and since that time there has occurred an ebb flow which has fallen so low that many former enthusiasts are now doubting the value or usefulness of the procedure. Certainly this change in attitude must have a justifiable reason. What are the causes for this dampening of enthusiasm amongst so many of our urological colleagues? All agree, so far as I am able to learn, that transurethral resection has a definite place in prostatic surgery. Many able urologists believe that transurethral resection should be performed in only the small median lobe hypertrophies, median bars and vesical neck contractures. Others feel that all obstructive lesions of the bladder outlet, regardless of size, should be dealt with by the transurethral approach. Surely the proponents of extreme conservatism are expressing honest opinions based upon wide experience—they cannot be accused of being entirely wrong. Perhaps both groups are entirely right. Surely, this operation, recognized by all as having a place in some cases must be

sound in principle. The inability of any able surgeon or group of surgeons to properly perform any sound operative procedure does not condemn that operation to the scrapheap. Neither should the superlative technical ability of a few surgeons give license to the universal practice of any difficult operation.

All surgeons who have performed transurethral prostatectomy agree on its technical difficulties. All are equally aware of the many complications that may arise to increase the hazard of the operation, as well as the postoperative course of the patient. Many are aware of certain unhappy end-results that have proven unsatisfactory to physician and patient alike.

An enumeration of some of the technical difficulties and complications of operation and the postoperative period and an analysis of the major delayed complications are of interest and importance in evaluating the proper place of this operation in the management of prostatism.

The major causes of death following transurethral resection are hemorrhage and sepsis.

The major cause of postoperative morbidity is infection.

The greatest factors producing unsatisfactory immediate postoperative results are—dysuria, frequency, difficulty of urination, and cloudy infected urine.

Unsatisfactory end-results as judged by check-up examination from six months to a year following operation are generally indicated by symptoms of dysuria, frequency of urination, and difficulty with voiding. Patients presenting these unsatisfactory end-results are generally found to have cloudy, infected urines, enlarged, tender, infected prostate glands with or without residual

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urine and too frequently are possessed of strictures situated in the pendulous urethra.

Any physician at all familiar with transurethral resection is fully aware of the complicating factors which have just been enumerated. To analyze the causes of failure and suggest methods for prevention of these failures let us consider some fundamental principles involved in the problem at hand.

The researches of Doctor Reuben Flocks, of Iowa City, have been of tremendous importance in understanding the pathological anatomy of prostatism and in explaining the reasons for many postoperative complications. He has shown that about 90 per cent of the adenomatous mass of tissue derives its blood supply from the urethral arteries, which enter the prostate in the region of the internal sphincter and course distally in the substance of the lobe. In performing transurethral resection these vessels are cut across and thrombosed at their point of entry into the gland. If the tissue supplied by these vessels is not removed at operation, it necessarily undergoes varying degrees of devitalization, becoming infarcted throughout a considerable area. Such infarcted tissue offers an ideal soil for bacterial invasion and becomes a sloughing area which may give clinical symptoms and signs for months or years after operation. We are familiar with the patient who, following resection, voids freely and easily and empties his bladder but who has frequency, burning and painful urination. His urine is cloudy with pus and micro-organisms of all varieties. Cystoscopic examination reveals denuded areas in the prostatic urethra covered with exudate and perhaps deposits of urinary salts. Patients suffering from these infarcted prostatic masses have taken urinary antiseptics and have been subjected to bladder lavage to no avail. Their primary need for prostatectomy has not been supplied and relief for their disability is dependent upon the completion of their prostatectomy by either the transurethral route or some other. The researches of Flocks have abundantly demonstrated that transurethral resection must be, in fact, transurethral prostatectomy. Those who perform this operation must be sufficiently aware of their own technical limitations to employ it in only those sized glands in which a more or less complete removal of tissue can be expected. Bumpus

and McCarthy published statements during the early days of resection saying that an enlarged gland would shrink in size if we removed the tissue actually giving rise to obstruction, channelizing the prostatic ure-

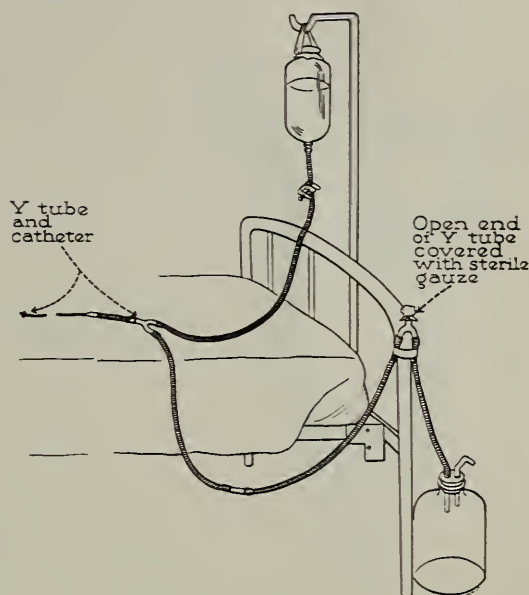


Fig. 1.

thra. Experience has amply shown that they were wrong, in that a gland, so resected, not only fails to shrink but acts as a focus for urinary sepsis.

Since infection plays an important role in the morbidity and mortality of operation, its control and prevention is imperative. To perform a complete transurethral prostatectomy upon a patient and then have him succumb to sepsis is an unhappy and sad commentary upon the surgeon and the operation he has performed. It is probably true that more sepsis occurs as a result of the introduction of bacteria which are entirely foreign to the patient than from those organisms which the host brings with him when he comes to the surgeon. The careful preparation of the patient for catheterization or instrumentation and the aseptic care of catheters and drainage systems both pre- and postoperative will, in a large measure, reduce sepsis to an unusual complication. It has been our practice for the past three years to employ a closed, sterile irrigator drainage system in all patients requiring catheter drainage (Fig. 1). The entire system wrapped in a sheet is sterilized in the autoclave. Each ward has an available supply. Catheters are introduced with aseptic technic and the irrigating drainage system

is immediately connected up. The reservoir bottle is filled with 2 per cent boric solution in most cases. In those having badly infected bladders, acetic acid $\frac{1}{4}$ per cent is used. Frequent irrigations with the acetic solu-

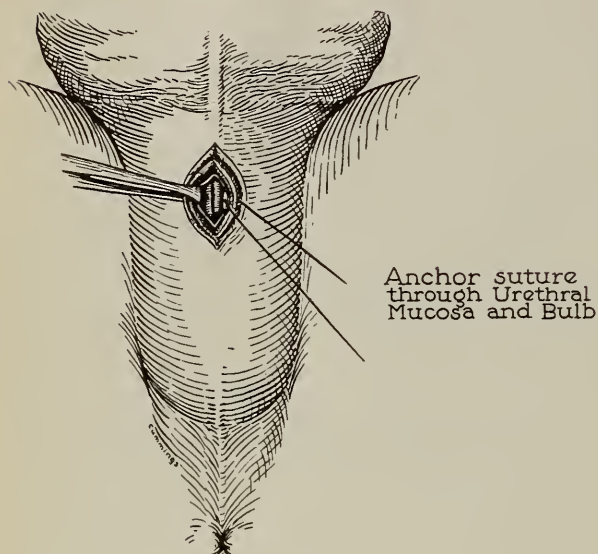


Fig. 2.

tion lowers the pH of the bladder so that bacterial activity is quickly put into abeyance. The irrigator system is never disconnected when once put into use, it being our object to provide drainage and to prevent the contamination of the bladder by accidental inoculation from organisms foreign to the host. The absence of sepsis which has resulted from the employment of these methods has justified a great enthusiasm for them.

The ultimate result of a perfectly performed resection has been occasionally marred by the development of urethral stricture. This unhappy sequel has been observed by all resectionists who have checked up upon their patients, but unfortunately has received practically no recognition in the literature. Bumpus aptly remarked that one had better perform some other type of prostatectomy than do a successful resection and then leave the patient with a lesion of the urethra infinitely more debilitating and difficult to treat than his prostatism.

Resectoscopes must of necessity have sheaths of large caliber, most instruments in common use being 28 or 30 Fr. in size. All male urethras do not possess this caliber. It has been the practice of resectionists to dilate such urethras until they could accom-

modate the resectoscope. This dilatation has amounted in fact to rupture or divulsion of the urethral mucosa which can only result in stricture. These injuries invariably occur in the pendulous portion and at the penoscrotal angle where strictures are prone to contract rapidly and are notoriously difficult to dilate. The anticipated success of resection has doubtless led to the occasional unwarranted disregard of the urethra and to irreparable insult to some.

About a year and a half ago Hugh Cabot suggested that perineal urethrotomy would avert this disaster. His colleague, Dr. Gersholm Thompson, subsequently reported its use in one case. Following the suggestion of Cabot we have employed perineal urethrotomy in all cases where the urethra has not easily admitted the free passage of a No. 30 Fr. steel sound (Fig. 2). An incision 2 cm. long, in the bulb, is made upon a small grooved sound in the urethra, the cut edges of the bulb are transfixed with long traction sutures and the instrument is introduced through this perineal incision. At the end of operation the catheter is brought out the entire urethra and the incision in the bulb is closed with one catgut stitch.

During the past year perineal urethrotomy has been performed in approximately 11 per cent of all resection cases. In no instance has the procedure resulted in any complication, either immediate or remote, that has in any way contributed to postoperative morbidity, or discomfort to the patient. Upon removal of the catheter all but two patients have voided part of their urine from the incision. Many have had completely healed wounds in three days. The longest period of perineal drainage was fifteen days. Complete wound healing occurred on an average of nine days in the entire series. Postoperative check-up examinations on the majority of these patients have invariably shown absence of any evidence of stricture in the region of the bulb and in most instances one can scarcely see or feel any evidences of the urethrotomy scar. I firmly believe that we have seen our last stricture following resection.

A discussion of the technic of operation is hardly appropriate before this group. However, one feature of the technic will be discussed, which I believe is absolutely essential to complete removal of the gland.

I refer to third dimensional perception. The instruments which are regularly used to perform this operation provide only visual perception of two dimensions. Perception of the third dimension can be obtained only through the sense of touch by rectal palpation, enabling one to accurately estimate the amount of tissue which must be excised. Pressure exerted upward or medially by the examining finger also aids materially in bringing tissue into the path of the cutting loop or blade of the instrument. Guided in this manner by the sense of touch as well as by sight one can avoid the dangers of cutting too deeply in vulnerable areas and can carry resection of the tissue quite accurately down to the capsule of the gland, which is readily recognized by its appearance.

In the past it has been our practice to make rectal palpation numerous times during the course of operation. While the actual cutting maneuvers were being carried out, an assistant constantly maintained digital pressure over the area of excision, guiding the operator as to the thickness of the prostatic mass as well as warning him against dangerous areas. Feeling the necessity for simultaneous palpation and cutting by the operator as an added factor of safety as well as accuracy, we suggested that our existing instruments be modified to permit this refinement in technic. Such modifications of the resectoscope have been perfected so that the operator can now work entirely with one hand, enabling the other hand to be free to safely guide the excision of tissue. The use of this modified instrument has permitted a refinement of our technic not only from the standpoint of accuracy and safety, but also has permitted an increase in the speed of resection.

All patients are checked up one, three and six months after leaving the hospital. At the end of three months the post-resection patient should be voiding freely and easily, passing grossly clear urine and should be voiding three to six times by day and not over twice at night. He should not have a stricture of the urethra. If these conditions do not prevail he should be examined to determine the cause of his persisting difficulties. Such difficulties may well be found to arise from pre-existing urinary tract lesions such as chronic pyelonephritis, infected hydronephrosis, calculus disease or

diverticulum of the bladder and an unsatisfactory result in such event should not be blamed upon the operation. Should examination reveal persisting prostatic obstruction, stricture of the urethra or sloughing tissue at the operative site, the persisting symptoms are clearly a complication of the operation and must be dealt with accordingly.

Transurethral resection, when properly performed, shows to advantage over other types of prostatectomy in that it carries a very low mortality rate, the morbidity is less, and the period of hospitalization is greatly reduced. An important advantage adjudged by the patient is that he is saved the distress and discomfort attendant upon the operative wounds incident to open operations.

Obviously transurethral prostatectomy is not the simple and foolproof operation that early reports proclaimed it. This being true, just what place should this procedure have in the surgery of prostatism? Should all surgeons utilize the procedure? What type of case should be submitted to resection?

The answer lies with the skill of the surgeon and with the care he is able to utilize in the pre- and postoperative management of his patients.

Transurethral prostatectomy is a sound procedure demanding a high degree of technical skill for its proper execution. Any surgeon possessed of this skill can perform the operation with the expectation of obtaining excellent postoperative results. Such a surgeon will recognize the limits of his own dexterity and perform transurethral resection in only those cases where he can expect to perform a more or less complete prostatectomy. Other cases he will reserve for more appropriate surgical procedures. His dexterity, skill and experience may warrant his performing resection in 100 per cent, or perhaps 10 per cent, of cases. In either case his sound judgment must be borne out by his good results. Since sound judgment in this field can only be obtained by a wide and intelligent experience, the election of transurethral resection in any given case must be made by the competent urologist and by no other person. Too frequently the patient or perhaps his referring physician presents himself demanding that a transurethral resection be performed. The universal acquiescence to such demands

can only lead to injudicious selection of operative procedure in many cases, discredit to the operation and surgeon, and suffering to the patient.

The able resectionist will guard his patients against morbidity and mortality from needless loss of blood and from sepsis, since these complications have been largely eliminated by modern methods. He will prevent

traumatic stricture occurring as a devastating sequela of an otherwise satisfactory prostatectomy.

The millennium of prostatic surgery has not arrived—but a distinct advance has been made. However—the resectoscope is a two-edged sword.

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A CASE OF NON-TUBERCULOUS PNEUMOTHORAX— PROVEN BY AUTOPSY*

RALPH L. FISHER, A.B., M.D., F.A.C.P.

DETROIT, MICHIGAN

Three instances of spontaneous pneumothorax, which were not of tuberculous origin, have been previously reported by the author.¹¹ This case, the second one of this series, subsequently succumbed. As is well known, this condition is of frequent occurrence in tuberculosis and some authorities, such as Behr and Jaccoud, claim that infection with the Koch bacillus is responsible for about ninety per cent of cases. Incidences in which tuberculosis has not been a factor have been reported by Browder,⁵ Ehrlich,⁸ Kahn,¹⁴ Priest,²¹ Kelly,¹⁵ Bedford and Joules,² Kjaergaard,¹⁶ Bock,⁴ Hasney and Baum,¹² Cummings,⁶ and many others. Asthma, as an etiological agent, has been observed by Benedict,³ Emerson and Beeler⁹ and Jeffrey.¹³ Bock⁴ claims that practically any disease of the lung may be complicated by a symptomatic pneumothorax, recidivation or relapse characterizing the so-called idiopathic variety. Spontaneous pneumothorax complicating influenza has been reported by Neffson and Bullova,² and one following otitis media by Allison, Hellier and Seed.¹ Stoloff²² has reported a series of cases occurring in infants and children as a complication of the following conditions: emphysema, apoplexy, gangrene of the lung, pneumonia, pertussis, diphtheria, bronchiectasis, foreign body in the lung, infarct, abscess of the lung, typhoid fever and rupture of a subpleural abscess. Lemon and Barnes¹⁷ of the Mayo Clinic have reported twenty-two cases, and Watson and Robertson²³ have reviewed some two hundred cases of non-tuberculous spontaneous pneumothorax. McMahon,¹⁵ and Markson and Johnson¹⁹ have given recent extensive reviews of the literature on this subject.

Conclusive evidence of a non-tuberculous etiology for spontaneous pneumothorax is

best gained from careful study of autopsy material, if such becomes available to the physician. Few cases of proven etiology have been reported in any detail. Hence, this case becomes exceptionally interesting, for not only did physical and x-ray examination over a period of eight years fail to show evidence of tuberculosis, but careful study of the lungs at autopsy also failed to reveal any evidence of an acid-fast infection.

Case Report

This case was that of a young man, twenty-nine years of age, single, and a physician by occupation. Family history essentially negative. Past history revealed that the patient had had frequent attacks of follicular tonsillitis when he was a student in college. There was a history of chronic otitis media on the right side and mumps and chicken pox when he was child. The patient was of temperate habits. There was no history of cough, night sweats or hemoptysis. Three months previous to the present illness the patient underwent an operation for acute mastoiditis on the right side. The recovery was very slow, the patient losing his hearing for some time, and remaining in a very run-down condition. One afternoon while walking down the street he felt a severe pain in his left chest and collapsed on the sidewalk. His respirations became very labored and the pulse very fast, these conditions continuing until time of admission to the clinic.

Physical examination revealed a pale, undernourished young man, very ill in appearance and breathing with great difficulty. Coughing was frequent, motion in the left chest was very limited, and the intercostal spaces on that side were obliterated;

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voice sounds and vocal fremitus were absent on the left and there were no audible breath sounds; the heart was displaced to the right, the pulse was very rapid with occasional extrasystoles.

Laboratory data were unimportant except for a moderate secondary anemia.

lung a pin-point perforation in the visceral pleura is found at the junction of the diaphragmatic and mediastinal surfaces. There is partial consolidation of the lower lobe of the left lung and the surface is covered with a thin fibrinopurulent exudate. There is no enlargement of the hilus or the mediastinal



Fig. 1. Radiograph taken at time of the first spontaneous pneumothorax.

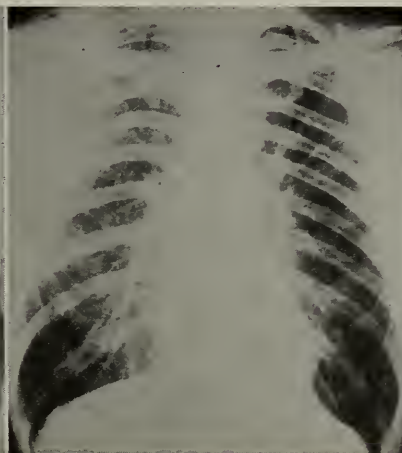


Fig. 2. Radiograph taken seven years after the first spontaneous pneumothorax.



Fig. 3. Radiograph taken one month prior to death and demonstrating the recurrent spontaneous pneumothorax on the left side.

X-ray examination confirmed the clinical diagnosis of pneumothorax of the left chest.

This patient very slowly improved, although some respiratory embarrassment continued for several years, and he eventually regained good health. An x-ray examination at this time revealed no pathology in the lung.

About seven years after the original attack, the patient was again suddenly seized with acute pain in the left chest and labored respirations. X-ray examination revealed a recurrent pneumothorax on the left side, but he was not completely incapacitated and returned to part time duty within a few days. Frequent repeat x-rays of the chest showed a persistent partial collapse of the left lung. Some six months later he contracted a severe cold which was soon followed by the development of pneumonia of the right lower lobe, gradually spreading to the right middle lobe. His condition grew rapidly worse and, in spite of serum therapy, he eventually ended up in extremis. As exodus was imminent, it was decided to decompress the left lung. The re-expansion of the left lung was followed by a very dramatic return of consciousness on the part of the patient. The following day, however, the pneumonic process extended to left re-expanded lung and the patient succumbed within the next twenty-four hours.

The autopsy report (Osborne Brines, pathologist) read as follows:

Gross Appearance.—The subject is a middle aged adult male exhibiting no important superficial markings other than subcutaneous congestion of the shoulders and neck.

Thoracic and Abdominal Examination.—An incision was made for a thoracic autopsy extending two inches below the xyphoid cartilage. The left lung occupies about one-half of the left pleural cavity, and the remainder of the space is occupied almost entirely by straw-colored fluid containing flecks of fibrin and measuring between 1,500 and 2,000 c.c. There are no adhesions on either side. On the visceral pleural surface of the left lung there are numerous fibrous scars, areas of contraction, depressions, and fissures, over some of which fibrous bands have formed. Upon inflating the left

nodes on either side. The right lung is considerably larger than normal and the right pleural cavity contains no fluid. The upper right lobe is emphysematous and the middle lobe is consolidated, a late red hepatization stage of lobar pneumonia being present. The right lower lobe is completely consolidated and represents a definite gray hepatization stage. The pleural surface of the right lung is smooth. There is no evidence of tuberculous infection in either lung. The gross appearance of the heart is normal. The liver is normal in color and on palpation the abdominal viscera exhibit no pathological changes.

Microscopic Examination.—In one section of lung there is early consolidation. The alveoli elsewhere are normally distended. There is some anthracosis present. The pleura is hyperemic and slightly thickened. The alveolar exudate is more serous than purulent. In another section there is partial collapse of the alveoli, a few being normally distended. There is profuse alveolar exudate in this section which is chiefly purulent. The pleura here is definitely thickened, and in the outer zone there is some production of scar tissue. Another section is taken from a similar area in the same lung. The pleura here is thicker and more vascular, but not so fibrous. There is some mononuclear infiltration present also. Another section is almost completely atelectatic. In this section there is marked irregular pleural thickening with anthracosis, hyperemia, mononuclear infiltration and extensive fibrosis. At one point there is a deep scar extending about 6 mm. below the surface, and in this connective tissue zone there are dilated terminal bronchi arranged perpendicularly and extending almost to the surface. In this fibrous tissue there is found considerable anthracotic pigment. In addition to the perpendicularly lined tubules there is also one which is continuous with these but which runs parallel to the surface within the visceral pleura for a considerable distance. There is no evidence, however, that this communicates with the surface. In none of the sections is there definite evidence of tuberculous infection."

Final Diagnosis.—(1) Bilateral lobar pneumonia

involving the middle and lower lobes of the right lung and lower lobe of the left lung (oldest in the right lower lobe. (2) Partial atelectasis of the left lung. (3) Localized chronic pleuritis of the left lung with multiple small subpleural scars. (4) Small pleural sinus at the left base. (5) Left hydrothorax.

Conclusions

The explanation of the spontaneous pneumothorax in this case was obviously the small pleural sinus area at the left base, careful examination of the involved tissues at autopsy failing to reveal any evidence of a tuberculous process in the lungs. It would appear that some rather obscure factor, which, according to Bock,⁴ produces injury to the visceral pleura by any one of several mechanisms, was present at some time in this case, the site of the pathologic change being in the region of the left base.

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DEPARTMENT OF INTERNAL MEDICINE UNIVERSITY HOSPITAL, ANN ARBOR STAFF CONFERENCE

L. R., a white American housewife, aged 39, was first admitted to the University Hospital on June 4, 1929, with signs and symptoms characteristic of moderately severe exophthalmic goiter. Her basal metabolic rate on admission was +47 per cent and after sedation, Lugol's solution, and bed rest for 26 days, at which time the B.M.R. was +62 per cent, a subtotal thyroidectomy was performed. Prior to operation it was found (on routine laryngoscopic examination) that she had a complete right recurrent laryngeal paralysis. Her course following the operation, however, was uneventful until the fourth day, when she developed twitchings of her extremities, carpo-pedal spasm, a Chvostek sign, and convulsions. The blood serum calcium was 5.7 mg. per cent. She was well controlled with viosterol, calcium lactate, hydrochloric acid, and paroidin (parathyroid extract). She was then discharged home August 27, 1929, and instructed to take the above medications. At the time of discharge her blood serum calcium was 10.7 mg. per cent.

In November, 1929, she developed joint changes of her fingers and left shoulder which were characteristic of chronic infectious arthritis. During an attack of so-called influenza in January, 1930, she discontinued the parathyroid extract, following

which she did well until October, 1930, when blurring and dimness of vision became troublesome as a result of bilateral cataract formation. During the next five months all of her finger nails "dropped" off three times. In 1931 she had a cataract extraction and was discharged taking parathormone and calcium lactate once again. She returned December, 1933, for further cataract extraction and at this time her blood serum calcium was 5.4 mg. per cent on admission but was elevated to 7.3 mg. per cent at the time of discharge. A check-up examination in August, 1934, showed no changes. In 1935 a parathyroid transplant was performed from tissue cultures grown in the patient's own serum; this failed to benefit the patient and she was discharged taking viosterol and calcium lactate. In 1937 she was instructed to adhere to a diet low in calcium and phosphate supplemented with calcium and dihydro-tachysterol (A.T. 10). On this regime she did well, having frequent calcium and phosphorus determinations of her blood. It was noted that whenever an intercurrent infection developed, it was difficult to maintain her blood calcium and phosphorus at near normal levels. The joint changes progressed until at the time of the present admission she had symptoms referable to her right hand and wrist,

shoulders, back and right knee. She returned at this time for a routine examination stating that she had been doing well and had been taking calcium lactate (5 per cent) 240 c.c. daily, a low calcium and low phosphorus diet and one c.c. of dihydrotachysterol (A.T. 10) daily.

The family and past histories were otherwise non-contributory except as noted above.

Physical examination: On admission her temperature was 99.5° F., pulse 105 per minute, respirations 20 per minute, and the blood pressure 130/96. She appeared well. There was slight swelling, tenderness and limitation of motion of the right wrist and hand; the rotatory motion of the vertebral column was slightly limited. The eyes showed bilateral surgical coloboma. There was partial edentulism, dental caries and gingivitis. An atrophic thyroidectomy scar was present. The examination of the heart, lungs, and abdomen revealed no abnormalities. There was a Chvostek and Trousseau sign demonstrable. The remainder of the examination was not abnormal.

Laboratory findings.—The urine examination was not abnormal. Blood studies: R.B.C. 4,470,000 per cu. mm.; Hb. 90 per cent, (Sahli); W.B.C. 11,000 per cu. mm., and an essentially normal differential count. The blood serum calcium was 9.5 mg. per cent and the phosphorus 3.7 mg. per cent.

Discussion

DR. CYRUS C. STURGIS: This patient is of a great deal of interest to me. First, because she is a classical example of hypoparathyroidism. Secondly, because she has had a trial of all the treatments known for the management of this condition and now is being adequately controlled on the most satisfactory therapy.

Another interesting phase is the development of the cataracts, in addition to having lost her finger nails a number of times. She has developed an arthritis, but I do not know that this has any relationship to the other disease. The patient has developed temperature elevation this afternoon. Her last blood calcium was 9.5 mg. per cent and the phosphorus 3.7 mg. per cent.

Dr. Freyberg, you have watched this patient's course over a long period of time; would you like to open this discussion?

DR. RICHARD H. FREYBERG: During the past several years I have made a number of observations on this patient, who has been most coöperative. In general, the problem of parathyroid disease has been one of the most interesting developments in the last fifteen years, both in regard to hyperfunction and to deficiency of function. Most cases of hypoparathyroidism follow operations on the neck, chiefly for removal of a goiter, as in this patient. When hypoparathyroidism results after operation, it frequently is only temporary and after a few days or weeks may disappear entirely and never return. But occasionally permanent changes result, as has been the case in this patient, who has a clinical state of hypoparathyroidism of such a degree that she had severe symptoms in the way of muscle spasms. Occasionally there is seen the chronic hypoparathyroidism in which the first clinical evidence is cataract formation. At other times, the clinical evidence is demonstrated by different types of cerebral

manifestations with true epileptiform seizures with all the characteristics of grand mal epilepsy. But the classical finding of hypoparathyroidism is the typical muscle contractures that produce carpo-pedal deformities. The blood findings are, of course, very characteristic, i.e., a low blood calcium and high phosphorus. At the time I first saw this patient she was at the stage of chronic muscle spasm, when the slightest irritation caused acute exacerbations and an increase in symptoms. The patient was totally incapacitated and worn out from such chronic spasm. The findings then were calcium 5.7 per cent, and phosphorus of 7 to 8 mg. per cent.

With the consent of the patient, a long-time study was conducted. We tried to make well-controlled observations of the various therapeutic agents that had been recommended for treatment of the condition. It was found that this patient was markedly benefited by a high intake of calcium in the form of calcium lactate. We observed no benefit from the taking of hydrochloric acid, nor any benefit from taking thyroid extract, which in many persons does change the calcium and phosphate metabolism in such a way to be beneficial in the lowered calcium state. The question of benefit from viosterol was at that time unsettled and we observed repeated conclusive evidence that viosterol taken in large doses was definitely helpful in this patient as there was a very definite increase in the calcium in the blood stream after the administration of large amounts of the drug. This patient was refractive to the injection of parathyroid hormone so that the problem of management was one without the use of this substance. We found the best results were attained by the use of a high intake of calcium by the addition of calcium lactate in association with the administration of large amounts of viosterol.

Another point of study was the diet in relation to this condition. By giving a diet high in calcium one is also adding large amounts of phosphorus, so we were therefore doing harm as well as good by such a diet. We observed very definite benefit when the diet was made poor in calcium and phosphorus and supplied the calcium in any of the non-phosphate salts. It was important in her case to take advantage of every little thing that could benefit her. With the intake of calcium medication and viosterol the patient was free of any frank symptoms, even in the presence of infection.

After a period of about a year, during which time the patient's condition was satisfactory, we were able to give a new form of therapy which is frequently referred to as A.T. 10. This is an irradiation product of viosterol. It was shown in 1934 by Holtz in Germany that it was very effective in raising the blood calcium. We began using this in the treatment of this patient and found, for the first time since the failure of effect from parathyroid extract, that we could increase the blood calcium to normal and, some time after that, the phosphorus would reach normal. It is worth while to point out here that as long as this medication has been used,

none of the patients have demonstrated any toxic manifestations nor any evidence that the patient's response wears out. The dose which maintained the patient a year ago is still maintaining her now. She feels better than ever before.

The mechanism of how A.T. 10 acts is unknown. Studies yield but very little information on this point. It is interesting that most of these patients who develop hypoparathyroidism either following operation or spontaneously are female patients. The menses tend to lower the blood stream calcium to a slight degree, and if they are low when menses begin it may cause the onset of symptoms of hypoparathyroidism. Infections tend to make it more difficult to control. Oftentimes concurrent with hypoparathyroidism there is thyroid deficiency; this patient, however, does not have this. In the four patients we have studied here, three have had an associated low thyroid state. Recently there has been pointed out a finding which is of great interest to me. Dr. Barr, with the association of Dr. McBryde, describes a patient with increased intracranial pressure and a choking of the discs as a result of a low blood calcium, of an idiopathic nature, in a female patient. This patient's history was such that she was thought to have a brain tumor, the choking of the discs amounting to 3 diopters in each eye. But the patient was treated with A.T. 10 as the blood calcium was found to be 5 mgm. per cent and the phosphorus correspondingly high. Within a week the chemistry of the blood was normal again and concurrent with this the cerebral spinal pressure returned to normal, the choking of the discs disappeared, and have remained so since.

In regard to the use of parathyroid extract and parathyroid transplants, one expects that the ideal thing is to supply the thing that is lacking. This medication was satisfactorily used in the prevention and treatment of parathyroid states; it was soon noted, however, that the patient became refractive to the treatment and the duration of time of development of such refractiveness was variable. Various studies were made here regarding that factor. I wish to give you my opinion regarding how and when such preparations should be used. In acute states where the patient needs immediate relief, I feel that parathyroid extract is indicated and intravenous injection of calcium should be given. I believe, however, that the parathyroid extract should not be employed for maintenance therapy. The patient should be maintained with proper diet and proper calcium medication and the use of A.T. 10. Parathyroid transplants have been tried for years but are not generally successful. Furthermore, the clinical studies (in regard to parathyroid transplants) that have been carried out in Baltimore have been very poor or complete failures. The use of A.T. 10 is the most beneficial when frank deficiency exists and an effort is made to quickly return the deficiency to normal. As much as 6 c.c. is given one day but when there is no urgent need, 2 to 3 c.c. may be given the first day or so and the medi-

cation controlled by frequent blood calcium value determinations. The maintenance dose varies between one-half and one c.c. of the medication daily.

In regard to the arthritis in this patient, I think it unlikely that it is related to the parathyroid disturbance. Recently some surgeons were removing parathyroid bodies as a treatment for arthritis and reporting some success but the evidence as obtained in other places is certainly against any association between parathyroid disease and arthritis. This patient has a characteristic rheumatoid arthritis and I think it developed entirely independent of the parathyroid disturbance. She had had frequent sore throats; her tonsils were thought to be in an unhealthy state and the tonsils were removed. Shortly after this, there developed the swelling of the wrists and hands. She is now comfortable so far as the parathyroid disturbance is concerned.

DR. STURGIS: Dr. Freyberg, is it your opinion that this A.T. 10 preparation acts in the same way as viosterol?

DR. FREYBERG: Viosterol has been shown to increase the adsorption of both calcium and phosphorus and it was with that in mind that we thought viosterol should benefit these patients but in our balance studies we failed to get any evidence of decrease in fecal calcium when viosterol was given. How A.T. 10 works I do not know.

DR. HENRY FIELD, JR.: I have been curious to know if there have been any recent experiments as to the mechanism of the reciprocal relationship of calcium and phosphorus in the blood. A good many years ago it was found that following the injection of phosphate into animals the calcium decreased as the phosphate increased.

DR. FREYBERG: I think the answer is still to be obtained. In cases of rickets or sprue, or in other cases of prolonged severe diarrhea, there may be a deficiency of both calcium and phosphorus in the blood stream. The effect of parathyroid hormone is best explained by the theory of Albright; there is some change that causes an increased excretion of phosphate and removal of it from the bones, in attempting to combat the lowered blood phosphorus in the blood stream. At the same time calcium is mobilized but the kidney cannot keep pace with the calcium excretion as it does with the phosphorus. Following injection of parathyroid extract the urinary phosphate increases before the urinary calcium.

DR. FRANK WILSON: Some ten years ago I was asked by the Department of Surgery to see a patient on refer who had had a thyroidectomy. At the time I arrived in the patient's room the intern came in with a syringe containing calcium. The patient had had one previous injection. Since there had been considerable question regarding the effect of calcium on the heart, I agreed to listen to the heart while the intern injected the calcium. The heart beat at the rate of 80; when he began the injection of this material the heart rate began to go up about 15 beats per minute, then it stopped and

(Continued on Page 831)

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SEPTEMBER, 1939

"Every man owes some of his time to the up-building of the profession to which he belongs."

—THEODORE ROOSEVELT.

EDITORIAL

THE ANNUAL MEETING

THE big event in Michigan medicine is slated for September 19-22 at Grand Rapids. This number of THE JOURNAL contains the complete program, virtually three days of intensive postgraduate work. The program is varied enough to suit all requirements. The officers of the society have spared neither effort nor expense to induce speakers who are capable of reviewing the most recent achievements of medicine and surgery. Arrange your work so that you may be able to attend as many of the lectures as you are interested in. During the coming year, these papers—the ma-

jority of them—will be printed in THE JOURNAL of the Michigan State Medical Society. It will be our endeavor to present them to the best advantage assuring the author of our full coöperation in the matter of getting his paper before the reader as he would wish. The importance of having an opportunity to read the papers presented at the annual meeting is second only to hearing the presentation by the author.

Nor is this all. The annual meeting is an opportunity for the medical profession of the state to get together. Nothing is of greater importance than a better understanding of our common problems. To get together, to talk things over, to renew old acquaintances and to make new friends is necessary for a unified profession. Medicine in common with other professions and occupations is still confronted with a future that is to a certain extent obscure. Even the wide adoption of the principle of group medical care still leaves problems to be solved. Open and free discussion with a sincere endeavor to get together, give and take, will go a long way toward eliminating dark places. Be present at the annual meeting if at all possible.

THE ASPIRANT TO MEDICINE

DO YOU WANT TO BE A DOCTOR is the title of a book*, a number in a vocational series, which discusses the medical situation for the young man who looks forward to medicine as a career. The subject should interest a greater number of people including doctors themselves, than the prospective medical student. The author, Dr. Fishbein, does not hold out a rosy picture to the aspirant to medicine. Things are vastly different from what they were thirty years ago when almost anyone could say that he was "going into medicine" and could carry out his desire. Today the young man may meet all the academic requirements of the best medical schools, yet stand about one chance in ten of being admitted. In spite of indictments, the threat of socialized or state medicine, the science of medicine continues to be alluring to multitudes of young men. In his book, as intimated, Dr. Fishbein has presented the medical situation in a clear and unbiased light. He has described the young man's

*Frederick A. Stokes Company, New York, 1939.

prospects for entering upon the study of medicine anywhere on the continent. The future holds out nothing but work, pre-medical, and if the aspirant is the one out of ten to be accepted, work through the long academic as well as intern years.

The old proprietary medical school was self-sustained. The modern medical school with fees ranging from \$200 to \$500 a year, with the average of \$254 paid by students, is far from being self-sustaining. Based on 1926-27, the cost of medical education per student per year was \$705. It will be seen that the student's fees do not begin to cover the expense of his medical training. Time was when the older members of the medical profession worked their way through college. Today it is almost an impossibility. The battle is in favor of the well-to-do. In fact, in some medical schools, the poor (in purse) student, no matter how industrious, is not enthusiastically received. This is perhaps for his own good, for the demands of the curriculum are so great as to require all his time, leaving none for the important task of earning a living. He might better consider some other vocation.

PEPTIC ULCER

THIS is a perennial problem for the general practitioner, internist and surgeon. One of the prime causes is emotion, worry. With the insecurity of the past few years, the incidence of peptic ulcer has not decreased. Brown and Dolkart* have studied some 1,500 recurrences of ulcer over a period of fifteen years. The causative factors which resulted in the original ulcer were present for the most part in the recurrences. They found functional nervousness which included fatigue and anxiety to be the greatest single cause. Next in importance was acute infections as sore throat, sinus or an acutely abscessed tooth. Then followed indiscretions in diet.

Naturally, the nature of the treatment depends upon the etiologic factor. Someone has said that men are tormented by the opinions they have of things, rather than by the things themselves. If worry and anxiety as mentioned, are allowed to possess the patient, the success of the treatment will be doubtful. Much of the older

therapy was more or less haphazard, of the "trial and error" sort. On the assumption that gastric or duodenal distress was due to an excess of acid or hyper acid gastric juice, alkalies were administered to neutralize the acidity. Regarding the relation of acidity to distressing symptoms, the authors mentioned, go on to say that "the spontaneous trends of the free acid levels were unrelated to the type of therapy, that fluctuations in gastric acidity bore no definite relationship to the onset of a recurrence of ulcer and that there was no correlation between the height of the free acid level and the degree of distress manifested by the patient." At the present, alkaline treatment has been superceded by frequent feedings of a bland, non-irritating diet.

In acute perforation and obstruction, where the stenosis is not spastic or due to edema, but due to cicatrization, the treatment is surgical. Surgery is the method of choice with many of those patients in whom gastric or duodenal distress does not respond satisfactorily to medical and dietetic management. Many cases of mass hemorrhage of mucosal origin do well on medical treatment followed by the administration of full diet. Meulengracht, quoted by Brown and Dolkart, reported a mortality of only 1.3 per cent in a group of 368 patients so treated. The clinical condition of the patient as well as the ulcer must be kept in mind. In some repeated blood transfusions may be indicated.

Colloidal aluminum therapy has been found preferable to alkalinization as a protection to the gastric mucosa. Kyger and Hashinger* conclude from a study of sixty-two proved cases of peptic ulcer that colloidal aluminum hydroxide is effective in a simple ambulatory regime in producing symptomatic relief in almost every ordinary case, and in promoting satisfactory x-ray improvement in most.

Peptic ulcer, however, must be regarded as chronic, which implies that patients must be kept under observation particularly during the spring and fall when a large percentage of ulcers have shown a tendency to recur. The authors† conclude that the clinician should first consider the patient,

*Kyger, E. R., and Hashinger, E. W.: Treatment of Peptic Ulcer with Colloidal Aluminum Hydroxide. *American Journal of Digestive Diseases*, Vol. 6, No. 6.

†Brown, C. F. G., and Dolkart, R. E.: An Evolution of the Therapy of Peptic Ulcer. *Jour. A.M.A.*, Vol. 113, No. 4, 1939.

*Brown, C. F. G., and Dolkart, R. E.: An Evolution of the Therapy of Peptic Ulcer. *Jour. A.M.A.*, Vol. 113, No. 4, 1939.

secondly the bowel and last the ulcer. This means tranquility of mind, rest, diet (frequent feedings). They place colloidal aluminum hydroxide, and other medication as secondary in any plan of treatment. There is no form of therapy that will guarantee a permanent cure. In few other pathologic states is the intelligent coöperation of the patient so important. Often he must adjust his life habits, mental as well as physical, including dietary routine. This should be explained to him. With many this involves what they deem a sacrifice they are willing to undertake.

GADGETS A FACTOR IN EDUCATION

ONE effect of the invention and the evolution of tools is to extend our organs of special sense. Without them, our observation must of necessity be more or less superficial. The ancient star gazer never got further than astrology. The invention of the telescope and its progressive evolution made the astrologist an astronomer with all the mathematical complexity of celestial mechanics. The microscope made histology and pathology possible as well as bacteriology; with the microscope is accompanied the development of the various differential stains. The sphygmomanometer and the electrocardiograph have made cardiology a special branch of medical science. The stethoscope has been a contributing factor not only in understanding cardiac physiology and pathology, it has also led to an extension of our knowledge of pulmonary disease. The discovery of the x-rays and the development of x-ray technics have not only opened up new fields in every department of medicine in which variation in density is a factor, but have led to an extension of the science of physics in fields not dreamed of before Roentgen made his notable discovery.

Is it too much to conclude that the progress of medical science during the past half century—a progress that has been greater than that of all previous recorded time—has been due to a large degree to gadgets?

THE POLIOMYELITIS SITUATION

IT is rather difficult to be up to date in a monthly magazine on such a subject as poliomyelitis. The task is more easily accomplished in a weekly publication, but most of all in the daily newspaper. However, the daily newspapers of the state have contained timely articles inspired by various county and city health board reprints. The Michigan State Medical Society through its executive committee has been alive to the importance of the subject and has informed all the members of the society how to proceed in suspected cases of poliomyelitis. "The Michigan Poliomyelitis Commission," which is an emergency commission, simply for the duration of this epidemic, has organized a consultation service for the early diagnosis as well as prompt orthopedic care of persons afflicted. A list of consultants has been supplied in the various counties throughout the state, so that a consultant is available on short notice as well as near at hand.

Physicians have been accused of "chiseling" in regard to submitting, for free medical care, patients able to pay, without discrimination, or patients whose condition cannot be classed as emergency, along with indigents, the cost of whose medical care is to be met by the state. When the term is applied to physicians by and large, we resent it. In fact, we know of no instance in which it is true. However, there may be isolated instances; if so, they are so rare that they should not be coupled with the name of medicine. There is no profession or calling that has exerted greater efforts to clean house than the medical profession. One cannot indict a race, said Edmund Burke. One cannot indict a profession. There may be a few scattered black sheep (we do not know of any). The medical profession has carried a noble tradition which never has turned a deaf ear to human suffering.



PLANNING AN ESTATE

BY HENRY C. BLACK AND ALLISON E. SKAGGS

PLANS for the accumulation of an estate must be flexible, and yet to a degree permanent. The requirements which an estate is expected to meet change as the years go by, and the plans made in the thirties are not necessarily the ones which work best in the fifties or sixties. An estate is not just something with which the doctor expects to support his family in the event of his death; it is also the means through which comforts and ease may be furnished in the doctor's declining years, at least the means of independence and self-support, rather than dependence on relatives, friends, or the state.

In the financial affairs of too many doctors we find two common errors: (a) the failure to plan clearly for the future, and (b) the failure to keep that plan clearly in mind. It should be very easy for anyone to define his financial goal in principle if not in degree. He might say, "What I want, financially, is enough to support my family modestly, own my own home, educate my children, and have something on which to retire when I get too old to work." Then why deviate from the plan which will eventually furnish all these things—buy "consolidated cats" and "malleable dogs" hoping against hope that they will furnish a magic short cut, instead of adhering to his original plan?

When a decision must be made relative to an investment, the purchase of insurance, building a home, or any other major financial problem, one good question to ask is "Does it fit into my ultimate plan?" "Will it further the accomplishment of my purpose, or am I going off on a tangent?" If it does fit into the plan without jeopardizing other commitments, and the money is available, the decision should be easy to make; otherwise it should be postponed until it does fit into the plan or else turned down permanently. The safest investment you or I can make, assuming our own solvency, is in our own obligations. In other words, why buy the stocks or bonds of the other fellow, until debts are paid? Why trade dollars, take double risks, and lose the

difference in interest rates, when there is everything to lose and nothing to gain?

It would be next to impossible to outline a definite plan for building an estate which would be applicable to more than a few particular cases. Some few suggestions may be in order, however, which may help the individual in making his own plans.

The doctor's first responsibility is to buy enough life insurance to create a minimum estate, if in the event of death he is unable to create it otherwise. The amount that should be bought at this time varies with the individual, his income, the amount of his debts, the size of his family, the living standards to which they are accustomed, his and their ages, etc. To determine this amount we suggest a frank discussion of the problem with a competent insurance underwriter, not a man who wants you to buy "another five" or "another ten," not a salesman who wants to sell you first and give you "service" afterward, but a man willing and qualified to determine your needs, sell you the protection necessary to fill these needs, *and no more*.

The next responsibility is the retirement of any outstanding obligations *simultaneously* with the accumulation of a reasonable cash reserve for emergencies. These two requirements go hand in hand, for here again we too frequently see the error of attempting to pay debts without accumulating at the same time the cash reserve which guarantees a peace of mind worth far more than the amount involved.

When should the doctor buy his home? This question cannot be answered in these pages, were we competent to do so. Many never buy a home, others do so while in the early years of practice, long before they can pay much more than interest and taxes. The permanence of the location, the type of community, the family requirements, and many other considerations affect the answer to this question. When these considerations indicate the wisdom of buying or building a home, the financial picture need not necessarily be quite as conservative as it should be in making any other type of investment. For example, a substantial equity in a home might be considered ade-

(Continued on page 814)

President's Page

I WISH to take this public opportunity to thank all who have contributed to the successes of the year. The numerous committees and officers of the society and many not officially so designated have worked faithfully and at tremendous personal sacrifices to the end that the science and art of healing might be advanced and made more freely available to all the people of the state of Michigan.

The methods of distributing care have changed down through the years, but the spirit of the great healers still lives with their followers.

Search for truth, self-sacrifice and altruism have ever been present in the doctors of medicine and as long as these prevail the health of our people will remain at a high level.

Foundations for many social adaptations have been outlined and it is sincerely hoped that future generations will view with approval the feeble but none the less sincere efforts of your retiring president who holds that the science of medicine and its distributors ever strive towards the highest plane of human achievement.

For my successor, Dr. B. R. Corbus, I wish the same loyal support you have rendered.

Yours, most sincerely,

A handwritten signature in cursive script, reading "Henry A. Luce".

President, Michigan State Medical Society



GRAND RAPIDS, OUR 1939 CONVENTION CITY

AGAIN the attention of the medical profession of the state is focused on Grand Rapids, the location of the seventy-fourth annual meeting of the Michigan State Medical Society. Of the cities of Michigan, the second in size, Grand Rapids is well equipped to handle the medical convention which has grown increasingly popular with the doctors of the state, as evidenced by the increasing attendance of the past several years. Grand Rapids is attractive as a convention center from the standpoint of hotel accommodation, excellent auditorium with its large exhibit space, as well as the opportunities afforded doctors and their wives for recreation—sports, sightseeing and shopping.

The history of Grand Rapids is interesting. Since its founding in 1826 by Louis Campau, the city has attained a population of more than 170,000. The location is ideal in the valley of the Grand River, cooled during the summer by breezes from Lake Michigan, not more than thirty miles away. Great hardwood forests originally occupied this area, and were responsible for establishment of the furniture industry about one hundred years ago. The production of furniture has increased and today there are approximately seventy plants devoted to furniture making so that Grand Rapids is known as the furniture capital of America, as Detroit is the automobile capital. In 1938, the Grand Rapids Furniture Museum was opened, the only one of its kind in the world, displaying original masterpieces, the finest new creations of the world's most noted designers and craftsmen in rooms designed by able interior decorators. Here we have a history of furniture making in Grand Rapids through displays of the various periods, and the processes of furniture manufacturing.

Grand Rapids has all the advantages of a metropolitan city. The hotels are on a par

with the finest of any great metropolitan center, with modern, fireproof accommodations for some 3,500 persons. The business district has several large department stores and many fine shops offering a great diver-



Pantlind Hotel

sity of products. There are a number of modern, air-conditioned theaters in the down-town business area.

Perhaps the most outstanding feature of Grand Rapids is the beautiful and spacious Civic Auditorium. Opened to the public on January 1, 1933, it has been the center for numerous conventions as well as local performances of an educational or entertaining nature. The main auditorium seats 5,600 persons; it has at one end a stage, 98 feet wide and 36 feet deep, equipped with an excellent lighting arrangement. There is also another auditorium, known as the Black and Silver room, accommodating 900 persons, which can be converted into a ballroom. In addition, the Civic Auditorium has 44,000 square feet of exhibit space. A tunnel connects this great building with the largest hotel of the city, the Pantlind, located just across the street.

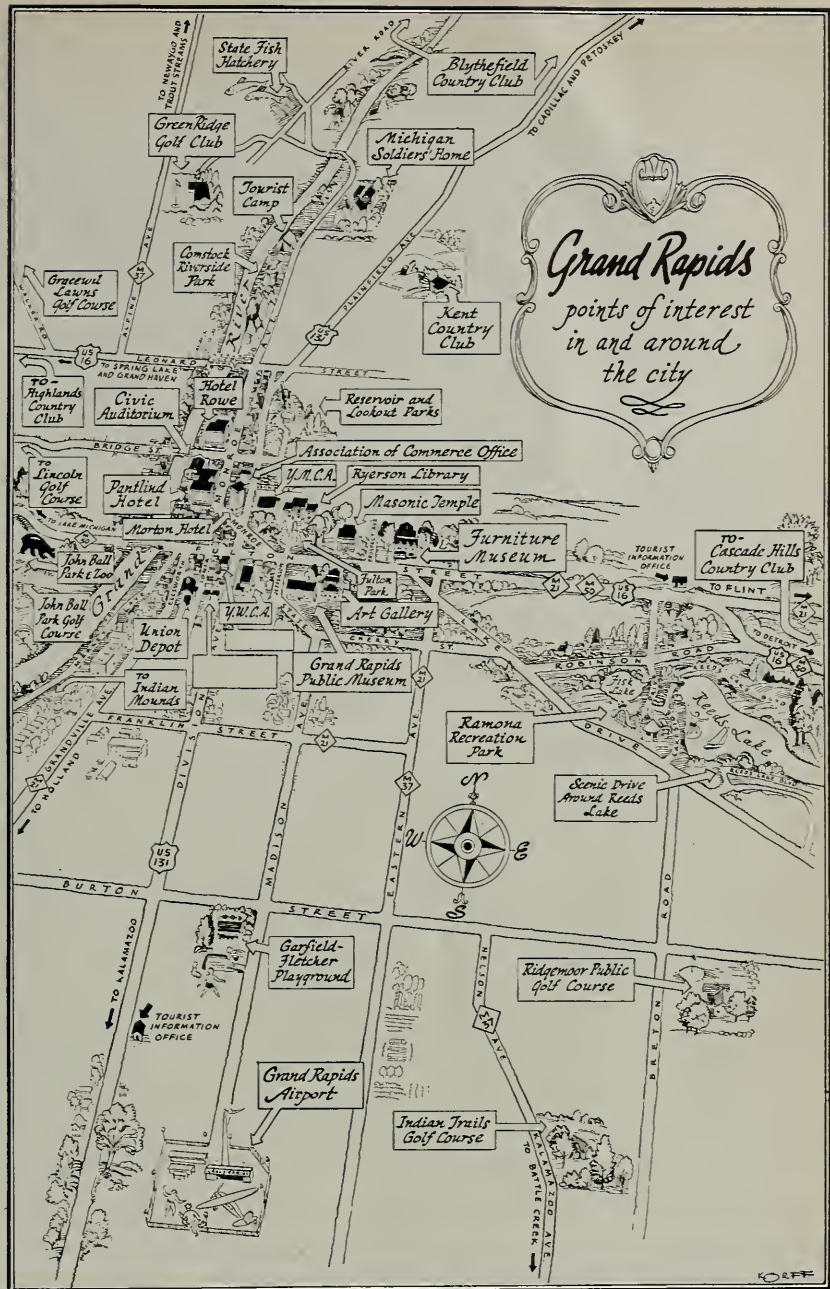
Grand Rapids is proud of its Public Library, containing nearly half a million books. The Art Gallery has an outstanding collection of permanent as well as loaned exhibits. Also the new Grand Rapids Public Museum offers a worth-

Jour. M.S.M.S.

while exhibit of Indian relics and a complete display of Michigan fauna and flora.

In facilities for recreation, Grand Rapids is not found wanting. Many of the parks and playgrounds are equipped for sports including swimming pools. A popular pleasure spot is Ramona Park on Reeds Lake in East Grand Rapids. Here are all the thrills and excitement of an amusement park as well as fishing, bathing and cruising on a large passenger steamer. To delight the golfer, there are eleven first class golf courses in and around the city. There are a number of excellent municipal and public courses in addition to the private country clubs.

For anyone interested in sightseeing, a visit to the Dwight Lydell Fish Hatchery would be worthwhile. This is situated at Comstock Park, just north of the city. The hatchery is the largest in the country and is maintained by the State of Michigan to conserve the fish supply and to replenish the streams and lakes of



Swimming Pool at Blythe Field Country Club

Western Michigan with perch, pike, bluegills, bass and trout. Another scenic feature consists of numerous Indian burial mounds near the river about three miles south of the city where spears, flint implements, pottery and delicately carved coral and other relics of archeological importance were found.

Of course, the full program of the annual meeting will demand the major interests of the visiting doctors. The sights of Grand Rapids enumerated above will be of interest to the wives of the doctors who look forward to this annual event.

The 1939 Meeting



H. A. LUCE, M.D.
Detroit
President



P. R. URMSTON, M.D.
Bay City
Council Chairman



P. A. RILEY, M.D.
Jackson
Speaker, House of Delegates

OFFICIAL CALL

THE Michigan State Medical Society will convene in Annual Session in Grand Rapids on September 18, 19, 20, 21, 22, 1939. The provisions of the Constitution and By-laws and the Official program will govern the deliberations.

Henry A. Luce, M.D.,
President

P. R. Urmston, M.D.,
Chairman of The
Council

Philip A. Riley, M.D.,
Speaker

Attest: L. Fernald Foster,
M.D., Secretary



L. FERNALD FOSTER, M.D.
Bay City
Secretary



B. R. CORBUS, M.D.
Grand Rapids
President-Elect



WM. A. HYLAND, M.D.
Grand Rapids
Treasurer

CONVENTION INFORMATION

DIRECTORY

Headquarters.....Civic Auditorium
 Registration....Exhibit Floor, Civic Auditorium
 Hotel Headquarters.....Pantlind Hotel
 Technical Exhibits.....Civic Auditorium
 General Assemblies..Black and Silver Ballroom,
 Civic Auditorium
 Publicity, Press Room.....Room "D"
 Civic Auditorium
 Telephone: 9-6266
 Official M.S.M.S. Booth.....Exhibit Floor,
 Civic Auditorium
 Woman's Auxiliary, Headquarters and Reg-
 istration.....Pantlind Hotel

SYMPOSIUM ON "THE BUSINESS SIDE OF MEDICINE"

Monday, September 18, 1939
 1:30 to 4:30 P. M.

Supper Club Room, Pantlind Hotel,
 Grand Rapids

Arranged for secretaries and office assist-
 ants of M.S.M.S. Members. Physicians and
 their wives are cordially invited.



JAMES B. STANLEY



ALLISON SKAGGS

Program

Presiding: PAUL W. WILLITS, M.D.,
 Grand Rapids

1. "Practical Legal Highlights of a Doctor's
 Office" (30 min.)
 JAMES B. STANLEY, LL.B., Kalamazoo,
 Michigan

Question Period

2. "Office Procedures" (30 min.)
 ALLISON SKAGGS, Battle Creek, Michigan

Question period

3. Round Table Discussion (55 min.)
 Favors for the Ladies

COUNTY SECRETARIES' CONFERENCE

Swiss Room Pantlind Hotel

Tuesday, September 19, 1939
 5:30 to 8:00 P. M.

OTTO O. BECK, M.D., Birmingham, Presiding



THOS. A. HENDRICKS

"How Not to
 Make Laws and
 Influence Legis-
 lators"

THOMAS A.
 HENDRICKS, In-
 dianapolis, Indi-
 ana, Executive
 Secretary, Indi-
 ana State Medi-
 cal Association,
 and Indiana
 State Senator.

"Leadership by the County Medical Society"
 L. FERNALD FOSTER, M.D., Secretary, M.S.
 M.S., Bay City.

"Michigan's Group Medical Care Plan"
 HENRY A. LUCE, M.D., President, M.S.M.S.,
 Detroit.

REFRESHMENTS DINNER
 PRESENTATIONS

All Members of the State Society will be
 Welcome at This Conference.

Register—Exhibit Floor, Civic Auditorium
 Grand Rapids—as soon as you arrive.

Admission will be by badge only to all Scientific
 Assemblies and Section Meetings. Bring your
 M.S.M.S. or A.M.A. Membership Card to expedite
 registration.

No registration fee to members of the Michigan
 State Medical Society.

Hours of Registration: Daily 8:30 A. M. to 6:00
 P. M. on Monday, Tuesday, Wednesday, Thursday,
 and to 4:00 P. M. on Friday.

* * *

Guests—Members of the American Medical As-
 sociation from any state, or from a province of
 Canada, and physicians of the Army, Navy and U.
 S. Public Health Service are invited to attend, as
 guests. Please present credentials at Registration
 Desk.

Bona-fide doctors of medicine serving as internes,
 residents, or who are associate or probationary
 members of county medical societies, if vouched
 for by an M.S.M.S. Councilor or the president or
 secretary of the county medical society, will be reg-
 istered as guests. (Please present credentials at
 Registration Desk.)

* * *

Register at each booth in the Grand Rapids
 Exhibit. Your friend, the exhibitor, will appre-
 ciate your visit and interest.

THE 1939 MEETING

Physicians, not members, if listed in the American Medical Directory, may register as guests upon payment of \$5.00. This amount will be credited to them as dues in the Michigan State Medical Society **FOR THE BALANCE OF 1939 ONLY**, provided they subsequently are accepted as members by their County Medical Society.

* * *

Michigan State Medical Society Headquarters are adjacent to the Registration Desk at the entrance to the Exhibit Hall. An M.S.M.S. Councilor or Officer will be in attendance at all times.

* * *

Ten General Assemblies, Tuesday, Wednesday, Thursday and Friday, September 19, 20, 21, 22.

* * *

Papers will begin and end on time!

* * *

Public Meetings—The evening assemblies of Tuesday, Wednesday and Thursday, September 19, 20, and 21, will be open to the public. Invite your patients and other friends to these three great meetings:

1. Medical Service Night, Tuesday—Civic Auditorium.
2. President's Night, Wednesday—Civic Auditorium.
3. Postgraduate Convocation, Thursday—Civic Auditorium.

* * *

All Section Meetings will be held on Wednesday morning only, September 20.

* * *

Parking—Do not park your car on the street. Convention parking near the Civic Auditorium will be marked off with suitable sidewalk signs. The Grand Rapids Police Department will issue courtesy cards (at Registration Desk) for out-of-town autos which give parking privileges but do not apply to metered spaces. Nearby parking lots are available, as well as convenient indoor parking facilities. The indoor parking rates at the Pantlind Garage is 50c for 24 hours. Parking is free for 24 hours with one of the following services (a) car wash; (b) complete lubrication; (c) oil change; (d) purchase of 10 gallons of gasoline.

* * *

Papers will begin and end on time!

* * *

The Preventive Medicine Committee Reunion, for present and past members of the M.S.M.S. Preventive Medicine Committees, will be held Thursday, September 21, 1939, 12:30 to 1:30 P. M. in the Swiss Room of the Pantlind Hotel.

Dr. Lloyd D. Felton of Washington, D. C., will be guest speaker. His subject will be "Host Factors in Pneumonia."

All members of the M.S.M.S. are cordially invited to attend this subscription luncheon.

* * *

Papers will begin and end on time!

* * *

Acknowledgment: The Michigan State Medical Society sincerely thanks the following friends for their sponsorship of lectures at the 1939 meeting:

Sponsor and Lecturer—Children's Fund of Michigan, *Richard M. Smith, M.D.*, Boston; W. K. Kellogg Foundation, *LeRoy A. Calkins, M.D.*, Kansas City; Michigan Crippled Children Commission, *Philip Lewin, M.D.*, Chicago; Michigan Crippled

Children Society and Michigan Department of Education, *Arch O. Heck, Ph.D.*, Columbus, O.; Michigan Department of Health, *Lloyd D. Felton, M.D.*, Washington, D. C.; Michigan Tuberculosis Association, *James Alexander Miller, M.D.*, New York; Children's Bureau, *Robert C. Hood, M.D.*, Washington, D. C.

* * *

Papers will begin and end on time!

* * *

Get Acquainted Dinner for all Medical Women, sponsored by the Grand Rapids Women Physicians, will be held Tuesday, September 19, 6:30 P. M., Pantlind Hotel, Grand Rapids. Chairman of the Hostess Committee is Ruth Herrick, M.D., 26 Sheldon Avenue, S. E., Grand Rapids.

A Special Meeting on Medical Service Problems will be held Sunday, September 17, 1939, at 8:30 P. M. in the Grand Ballroom, Pantlind Hotel, Grand Rapids. All M.S.M.S. Delegates and Members are invited and urged to attend this session at which Group Medical Care Plans, Welfare, and the Afflicted-Crippled Children Laws will be discussed.

In case of emergency, doctors will be paged from the meetings by announcement on the screen. Telephone numbers in the lobby of the Black and Silver Ballroom are: 9-1547; 9-1716; 9-1738.

* * *

Telephone Service—Local and long-distance telephone will be available at entrance to Black and Silver Ballroom, Civic Auditorium; also in Pantlind Hotel.

* * *

Essayists Are Very Respectfully Requested not to change time of lecture with another speaker without the approval of the General Assembly. This request is made in order to avoid confusion and disappointment on the part of the audience.

* * *

Technical Exhibits open daily at 8:30 A. M. and close at 6:00 P. M. with the exception of Friday, when the technical exhibits will close at 3:00 P. M. Intermissions to view the exhibits have been arranged during the morning and afternoon General Assemblies.

Please Register at Each Booth.

* * *

Golf Tournament—Sunday, September 17, 1939, beginning at 1:00 P. M. at beautiful Blythefield Country Club. Plan to participate in this 18 hole tournament and win a prize. Competition open to all members of the Michigan State Medical Society with scores from 60 to 260! Banquet and presentation of prizes will climax the day. The price: \$3.50.

* * *

Guest Golf—The Kent County Medical Society has arranged that M.S.M.S. members may play at all country clubs of Grand Rapids upon presentation of M.S.M.S. membership card and payment of greens fees.

* * *

Save an Order for the M.S.M.S. Exhibitor.

THE 1939 MEETING

PROGRAM SYNOPSIS

SUNDAY, SEPTEMBER 17

- 1:00 P.M. MSMS Golf Tournament**
Blythefield Country Club, Grand Rapids
- 4:00 P.M. Meeting of The Council, MSMS**
Blythefield Country Club
- 7:00 P.M. Golfers' Banquet and Presentation of Prizes**
Blythefield Country Club
- 8:30 P.M. Special Meeting for Delegates and Members**
Grand Ballroom, Pantlind Hotel

MONDAY, SEPTEMBER 18

- 8:00 A.M. Delegates' Breakfast**
Swiss Room, Pantlind Hotel
- 9:00 A.M. First Session, House of Delegates**
Grand Ballroom, Pantlind Hotel
- 1:30 P.M. Symposium on "Business Side of Medicine"**
Supper Club Room, Pantlind Hotel
- 3:00 P.M. Second Session, House of Delegates**
Grand Ballroom, Pantlind Hotel
- 8:00 P.M. Third Session, House of Delegates**
Grand Ballroom, Pantlind Hotel

TUESDAY, SEPTEMBER 19

- 8:30 A.M. Registration: Exhibits Open**
Exhibit Floor, Civic Auditorium
- 9:30 A.M. First General Assembly**
Black and Silver Ballroom, Civic Auditorium
(For detailed program, see page 791)
- 12:30 P.M. Committee Organization Luncheon**
For Chairmen of 1939-40 Committees
Room 222, Pantlind Hotel
- 1:30 P.M. Second General Assembly**
Black and Silver Ballroom, Civic Auditorium
(For detailed program, see page 792)
- 5:30 P.M. County Secretaries' Conference**
Swiss Room, Pantlind Hotel
- 8:00 P.M. Third General Assembly**
Black and Silver Ballroom, Civic Auditorium
PUBLIC MEETING—"Medical Service Night"
(For detailed program, see page 793)

WEDNESDAY, SEPTEMBER 20

- 8:30 A.M. Registration: Exhibits Open**
Exhibit Floor, Civic Auditorium
- 9:30 A.M. Meetings of Sections:**
General Medicine
Grand Ballroom, Pantlind Hotel
(See page 794)
Surgery
Black and Silver Ballroom, Civic Auditorium
(See page 794)
Obstetrics and Gynecology
Supper Club Room, Pantlind Hotel
(See page 794)
Ophthalmology
Directors' Room, Civic Auditorium
(See page 794)
Otolaryngology
Room "G," Civic Auditorium
(See page 794)
Pediatrics
Red Room, Civic Auditorium
(See page 795)
Dermatology and Syphilology
Room "F," Civic Auditorium
(See page 795)
- 1:30 P.M. Fourth General Assembly**
Black and Silver Ballroom, Civic Auditorium
(For detailed program, see page 796)
- 8:00 P.M. Fifth General Assembly**
Black and Silver Ballroom, Civic Auditorium
PUBLIC MEETING — "President's Night"
(For detailed program, see page 797)

THURSDAY, SEPTEMBER 21

- 8:30 A.M. Registration: Exhibits Open**
Exhibit Floor, Civic Auditorium
- 9:30 A.M. Sixth General Assembly**
Black and Silver Ballroom, Civic Auditorium
(For detailed program, see page 798)
- 12:30 P.M. Maternal Health Luncheon**
Room 222, Pantlind Hotel
- 12:30 P.M. Preventive Medicine Committee Luncheon**
Swiss Room, Pantlind Hotel
- 1:30 P.M. Seventh General Assembly**
Black and Silver Ballroom, Civic Auditorium
(For detailed program, see page 799)
- 8:00 P.M. Eighth General Assembly**
Black and Silver Ballroom, Civic Auditorium
PUBLIC MEETING—"Postgraduate Convocation"
(For detailed program, see page 801)

FRIDAY, SEPTEMBER 22

- 8:30 A.M. Registration: Exhibits Open**
Exhibit Floor, Civic Auditorium
- 9:30 A.M. Ninth General Assembly**
Black and Silver Ballroom, Civic Auditorium
(For detailed program, see page 801)
- 1:30 P.M. Tenth General Assembly**
Black and Silver Ballroom, Civic Auditorium
(For detailed program, see page 802)
- 4:30 P.M. End of Convention**

SCIENTIFIC EXHIBIT

Space No.	Exhibitor	Title of Exhibit
1.	American Medical Association	Industrial Health
2.	Eloise Hospital, Eloise	(a) Trichinosis (b) Photography of eye in color (c) Laparoscopic biopsy and photography
3.	Michigan Society for Mental Hygiene	Mental Hygiene
4.	Grace Hospital, Detroit	(a) Management of Acute Head Injury (b) The Effect of Isotonic Fluids, Sedatives and Narcotics in Acute Head Injury
5.	Michigan Department of Health	Schistosoma Dermatitis
6.	Michigan Tuberculosis Association	Morphologic Biology of Tuberculosis
7.	Michigan Division, Woman's Field Army of the American Society for the Control of Cancer—in co-operation with the Cancer Committee, Michigan State Medical Society.	Cancer Exhibit
8.	Detroit Diabetic Association	Diabetes Mellitus
9.	North End Clinic, Detroit	(To be announced)

Woman's Auxiliary



Mrs. P. R. Urmston
President

MRS. P. R. URMSTON
President, Woman's Auxiliary
and
The Executive Board
cordially invite
Members of the Woman's Auxiliary
to attend the Convention
September 19-22, 1939
Hotel Pantlind
Grand Rapids, Michigan



Mrs. H. S. Collisi
Convention Chairman

OFFICERS, 1938-1939

Mrs. P. R. Urmston, Bay City.....President
Mrs. L. G. Christian, Lansing...President-Elect
Mrs. Roger V. Walker, Detroit...Vice President
Mrs. R. E. Scrafford, Gay City.....
Secretary-Treasurer
Mrs. G. C. Hicks, Jackson.....Past President
Mrs. Guy L. Kiefer, East Lansing.....
Honorary President

PROGRAM

Tuesday, September 19, 1939

10:00 A.M. Registration—Pantlind Hotel

1:00 P.M. Luncheon, Pre-Convention Board Meeting—Pantlind Hotel
1938-39 Board Members and County Presidents.

6:45 P.M. Reception
Honorary National President, Mrs. Rollo K. Packard
Mezzanine—Pantlind Hotel

7:30 P.M. Banquet—Pantlind Hotel Grill
Presiding Officer—Mrs. Paul R. Urmston
Chairman—Mrs. Harrison S. Collisi
Introduction of Past Presidents
Address—Mrs. Rollo K. Packard, Chicago, Ill.
Subject: "Functions of the Auxiliary"

9:00 P.M. Fashion Show—Pantlind Hotel

Wednesday, September 20, 1939

9:00 A.M. Business Session, Pantlind Hotel, Swiss Room
Presiding—Mrs. P. R. Urmston
Address of Welcome—Mrs. William Butler

Response—Mrs. F. T. Andrews
In Memoriam—Mrs. James H. Dempster
Reading of Minutes—Mrs. R. E. Scrafford
Report of Treasurer—Mrs. R. E. Scrafford
Auditor's Report—Mrs. R. E. Scrafford
Report, Convention Chairman—Mrs. Harrison Collisi
Credentials and Registration—Mrs. Henry J. Pyle
Report of Special Committee and President's Message—Mrs. P. R. Urmston
Reports of Standing Committees
Reports of County Presidents
Report of Committee on Nominations
Election and Installation of Officers
Presentation of Pin
Courtesy Resolutions—Mrs. F. T. Andrews
Adjournment
(All doctors' wives are invited to attend)

1:00 P.M. Luncheon—Kent Country Club
Presiding—Mrs. Harrison S. Collisi, Convention Chairman
Honor Guests
Mrs. Rollo K. Packard
National President, A.A.M.A.
Henry A. Luce, M.D.
President M.S.M.S.
Burton R. Corbus, M.D.
President-Elect, M.S.M.S.
L. C. Harvie, M.D.
Chairman, Advisory Council
Paul R. Urmston, M.D.
Chairman, Council M.S.M.S.
Wm. R. Torgerson, M.D.
President Kent County Medical Society
L. Fernand Foster, M.D.
Secretary, M.S.M.S.
Mr. William J. Burns
Executive Secretary, M.S.M.S.
Address: Mr. Lee A. White
"What Can We Believe?"

4:00 P.M. Post-Convention Board Meeting
Presiding—Mrs. L. G. Christian
1939-40 Board Members

10:30 P.M. Music and Dancing—Pantlind Grill Supper Club Room

PROGRAM of GENERAL ASSEMBLIES

TUESDAY MORNING

September 19, 1939

First General Assembly

Black and Silver Ballroom, Civic Auditorium

W. H. HURON, M.D., Presiding

L. FERNALD FOSTER, M.D. and PAUL W. KNISKERN,
M.D., Secretaries

A. M.

9:30 "Surgical Treatment of Ulcerative Colitis"

RICHARD B. CATTELL, M.D., Boston, Mass.



RICHARD B. CATTELL

Surgeon, Lahey Clinic, New England Deaconess Hospital and New England Baptist Hospital.

The management of ulcerative colitis is considered to be primarily a medical problem. The course of the disease, however, in its severe manifestations has proved that medical treatment is not effective in all cases. From the experience in this clinic, 41 per cent of the patients have unsatisfactory relief of symptoms or recurrence of the disease. These unsatisfactory cases are due to complications unrelievable by other than surgical means.

Operation in our experience is elected early in the course of unsatisfactory medical management in order to avoid the high mortality following operation in these poor risk patients. Ileostomy, partial colectomy and complete colectomy constitute the valuable surgical procedures in these cases. The management of ileostomy, technic of operation and results of surgical treatment will be presented.

10:00 "Treatment of Male Hypogonitalism"

W. O. THOMPSON, M.D., Chicago, Ill.



W. O. THOMPSON

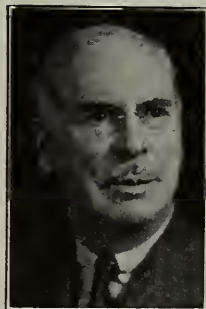
Associate Clinical Professor of Medicine, Rush Medical College of the University of Chicago. Associate Attending Physician, Presbyterian Hospital, Chicago. Formerly Research Fellow in Medicine, Harvard Medical School and in charge of Metabolism Laboratory, Massachusetts General Hospital.

The development of secondary sexual characteristics depends upon the production of male sex hormone by the interstitial cells of the testis. Hypogonitalism in most instances is secondary to hypopituitarism but in some instances (eunuchoidism) is caused by faulty development or atrophy of the testis. The treatment must therefore either stimulate the testis to greater activity (stimulation therapy) or replace the hormonal deficiency (replacement therapy). For stimulation therapy various gonadotropic factors are used, and for replacement therapy, male sex hormone (testosterone propionate). With these two types of therapy it is possible to produce striking genital growth and overcome any deficiency of male sex hormone production. Examples will be shown of the effect of treatment with gonadotropic factors in boys with undescended testes and in boys and men with the Fröhlich syndrome; and the effect of treatment of eunuchoidism with male sex hormone, before and after the age of puberty.

10:30 INTERMISSION TO VIEW THE EXHIBITS

11:00 "Endocrinology—Its Application to the Human Needs"

JAMES R. GOODALL, M.D., Montreal, Quebec



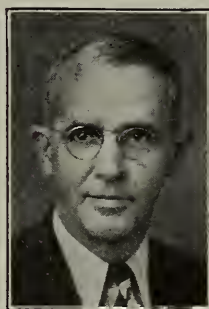
JAMES R. GOODALL

Professor Clinical Gynecology and Obstetrics (McGill); Gynecologist and Obstetrician to the Royal Victoria Hospital; Consultant (in charge) St. Mary's Hospital (Montreal); Consultant Gynecologist and Obstetrician to the Homeopathic Hospital and the Jewish General Hospital (Montreal).

Endocrinology is the science of the glands of internal secretion. Certain glands of internal secretion have been known for generations, but the action of these and of others is a recent discovery. The subject has now broadened to include all those body secretions that govern function—that govern and regulate, but do not create function. Function itself is inherent in the specific organ itself. But its governance is vested in some gland. In this way glands are the coordinators of function in the whole body, so that organs are not working at cross purposes. The functions of the body are coordinated by the autonomic nervous system. The human body contains two complete nervous systems: the one commonly known to the laity as the brain and spinal cord and their ramifications to every part of the body is fed by experiences through the five senses, and thereby gives man his orientation in the universe; the other, the autonomic system, has no external end-organs, but links up the various organs in a system of telephony whereby a maximum of function is effected with a minimum of effort.

11:30 "Public School Problems in Special Classes"

ARCH O. HECK, Ph.D., Columbus, Ohio



ARCH O. HECK

Professor of Education, Ohio State University; B.S., Hedding, Colo.; M.S., University of Illinois; Ph.D., Ohio State University; Principal, Hedding Academy, 1914-17; Head, Physics Department, Richmond, Indiana, High School, 1918-19; Director Research Department, Akron, 1920-23; Assistant Professor, School Administration, 1924-28; Associate Professor, School Administration, 1928-33. Author of "Education of the Exceptional Child"; "Pupil Personnel" and "Child Accounting."

Special education is currently defined as the education of all types of exceptional children—the deaf, the blind, the speech defective, the cripple, the delicate child, the socially handicapped, the subnormal and the gifted.

The number of such exceptional children is not yet rightfully appreciated by laymen or schoolmen. Even less well appreciated is the necessity for developing a special program of education for such groups. The necessity for developing special programs for the prevention of those conditions which result in one or the other of these handicaps is as yet generally unrecognized.

ACKNOWLEDGMENT: The Michigan Crippled Children Society and the Michigan Department of Public Instruction are sincerely thanked for their sponsorship of this lecture.

TUESDAY MORNING September 19, 1939

M.

12:00 "Recent Advances in Ophthalmology"

SANFORD R. GIFFORD, M.D., Chicago, Ill.



SANFORD R. GIFFORD

M.A., University of Nebraska 1924; M.D., University of Nebraska, 1918; First Lt. United States Medical Corps 1918-1919; Professor of Ophthalmology at Northwestern University since 1929; Attending Ophthalmologist at Cook County Hospital, Passavant Memorial Hospital and Wesley Memorial Hospital; Associate Editor of Archives of Ophthalmology.

1. Trachoma. Its etiology. Importance of epithelial inclusion bodies. Work of Thygesen, Lindner and others. Possible relationship to Rickettsia group of viruses. Relation of trachoma to inclusion blenorhea.
2. Surgical treatment of Retinal Detachment, Work of Gonin, Afar, Walker, Weve and others. Importance of Retinal holes. Method of closing holes by micro-coagulation. Results.
3. Keratoplasty. Limited field of corneal grafting. Methods of Filatow, Castroviejo and others. Requirements: a partially clear cornea with normal posterior segment.

P. M.

12:30 End of First General Assembly Luncheon

VIEW THE EXTRAORDINARY EXHIBIT OF 100 SPACES

TUESDAY AFTERNOON September 19, 1939

Second General Assembly

Black and Silver Ballroom, Civic Auditorium

ROY H. HOLMES, M.D., Presiding
L. FERNALD FOSTER, M.D., and F. BRUCE FRALICK, M.D., Secretaries

1:30 "Gastrointestinal and Hepatic Function in Congestive Circulatory Failure"

JONATHAN CAMPBELL MEAKINS, M.D., Montreal, Quebec



J. C. MEAKINS

Charter Fellow and First President (1929-31), Royal College of Physicians and Surgeons of Canada; Fellow of the American College of Physicians, 1928; Member of the Board of Regents 1928-33; President 1934-35; President, Canadian Medical Association, 1935-36; and Member of the American Board of Internal Medicine, 1936.

Our knowledge of circulatory failure has been accumulated with much patience and labor. The anatomical, hydrodynamic and physical aspects in many organs have been studied in much detail but still the secret of its

initiation and perpetuation remains elusive. Enlargement of the liver may be early and progressive. At the autopsy table nutmeg liver and cyanotic atrophy have been described but little attention has been paid to the functional and nutritional results of these and their importance. Further, the impairment of the gastrointestinal circulation has also been neglected. It is with these aspects of circulatory failure that the present communication deals.

2:00 "Adolescence"

BERT I. BEVERLY, M.D., Chicago, Ill.



BERT I. BEVERLY

"Assistant Professor of Pediatrics; Head of Clinic in Pediatrics Department, Rush Medical College, University of Chicago; Associate Attending Neurologist, Children's Memorial Hospital; Staff, Presbyterian Hospital, Chicago. Fellow American Academy of Pediatrics; Chairman Mental Hygiene Committee of American Academy of Pediatrics."

Adolescence is the period during which children grow up and take on the characteristics of adults. Like any other period of growth, it has characteristics and presents problems which are both general and peculiar to that phase of development. Emotional problems are the most important and least understood. The seriousness of these problems depends upon early training. It is necessary to understand them if we are going to help boys and girls through this difficult period.

2:30 INTERMISSION TO VIEW THE EXHIBITS

P. M.

3:00 "Evaluation of Total, Differential and Absolute Leukocyte Counts"

EDWIN E. OSGOOD, M.D., Portland, Ore.



EDWIN E. OSGOOD

University of Oregon Medical School, 1924; Assistant Professor of Biochemistry, 1928-33; Director of Laboratories, 1928-36; Assistant Professor of Medicine, 1929-39; Associate Professor of Medicine, 1939; Head of the Division of Experimental Medicine, 1936 to present. Member of American Society for Clinical Investigation; American Society of Clinical Pathologists.

Sources of error in the counting of the different kinds of white blood corpuscles and the diagnostic help which such counts may give the physician will be described. Tables aiding the physician or technician to recognize and name the different kinds of white blood corpuscles will be shown. New data on the normal types and numbers of white blood corpuscles in the blood of healthy persons of different age and sex groups will be given. The value of changes in the appearance of the white blood corpuscles as a method of determining the seriousness of an illness will be discussed. The diagnosis of the different types of leukemias will be discussed.

TUESDAY AFTERNOON

September 19, 1939

3:30 "Certain Symptoms Common to the Nose, Explained on a Physiologic Basis"

H. I. LILLIE, M.D., Rochester, Minn.



H. I. LILLIE

Rhinological and Otolological Society, Inc.

Because the actual physiologic activity of the upper part of the respiratory tract was hardly touched upon, perhaps not even mentioned, during their school years, physicians in general can hardly be expected to know much about the subject. Certain phenomena referable to the nose, quite normal in the final analysis, cause patients to complain because they do not understand. It should be incumbent on their medical advisers to distinguish between physiologic and pathologic symptoms referable to whatever system to which the complaint is referred. It happens that the nose performs its function in an orderly manner by virtue of its wonderfully adaptive physiologic mechanism. This mechanism is described and variations in responses due to environment are explained.

4:00 "The Management of Gastric and Duodenal Ulcer"

I. S. RAVDIN, M.D., Philadelphia, Penna.



I. S. RAVDIN

Harrison Professor of Surgery, School of Medicine, University of Pennsylvania and Director of the Harrison Department of Surgical Research, School of Medicine, University of Pennsylvania; Surgeon, Hospital, University of Pennsylvania.

The etiologic factors concerned with gastric and duodenal ulcer are still not clearly defined, but there is a good deal of evidence to suggest that these lesions are associated with disturbances in nutrition. In the majority of instances the uncomplicated gastric or duodenal ulcer is a medical problem. Surgery is useful in the management of certain of the complications of ulcer. A rational program for the management of ulcers will be presented, together with the indications for operation and the pre- and post-operative management.

4:30 End of Second General Assembly

THE ONE HUNDRED EXHIBITS WILL REMAIN OPEN FOR YOUR INSPECTION UNTIL 6:00 P. M.

TUESDAY EVENING

September 19, 1939

Third General Assembly Public Meeting

Black and Silver Ballroom, Civic Auditorium

BURTON R. CORBUS, M.D., Presiding
L. FERNALD FOSTER, M.D., Secretary

MEDICAL SERVICE NIGHT

8:00 "Democracy at the Cross Roads"

EDWARD J. MCCORMICK, M.D., Toledo, Ohio



E. J. MCCORMICK

A.B., St. John's University, 1911; M.A., St. Louis University, 1913; M.D., St. Louis University, 1915. First Lieutenant Medical Corps U. S. A., attached to 46th North Midland Division, B.E.F., 1917-19; Captain and Major in 1919; Military Cross (British). Chief of Staff St. Vincent's Hospital, Toledo, 1939; Fellow, American College of Surgeons since 1924; Fellow, International College of Surgeons, 1939; member of American Medical Association, American Association for Advancement of Science, and Diplomate of American Board of Surgery, 1939; member of Alpha Omega Alpha, and Phi Beta Phi. Grand Exalted Ruler Benevolent and Protective Order of Elks of U. S. A., 1938-39.

Time will be devoted to a consideration of the development of the youngest nation in the world under a government by and for the people. The various inroads that are being made by a "boring from within program" which threatens the democracy of the United States, will be pointed out. In conclusion, Doctor McCormick will point out that the present-day efforts to change medical practice in the United States are the back-wash of Communism and Totalitarianism upon our shores and that the interference with private initiative in medicine and surgery is but the opening wedge for the same type of interference in every business and profession.

End of Third General Assembly

Conference for Office Secretaries

Doctor, send your office secretary to Grand Rapids on Monday afternoon, September 18, 1:30 p. m. to 4:30 p. m.

Her attendance at the Symposium on

"The Business Side of Medicine" will bring beneficial results to you, in the conduct of your office. Please note program on page 787.

PROGRAM of SECTIONS

WEDNESDAY MORNING

September 20, 1939

SECTION ON GENERAL MEDICINE

Chairman: DOUGLAS DONALD, M.D., Detroit
Secretary: PAUL W. KUISENER, M.D., Grand Rapids

Grand Ballroom, Pantlind Hotel

A. M.

9:30 to 10:00 Round Table Discussion on
Functional Gastro-Intestinal Disorders

Conducted by J. C. MEAKINS, M.D., Montreal

10:00 to 10:30 "Outbreak of Undulant Fever
at Michigan State College"

CHAS. R. HILLARD, M.D., East Lansing

10:30 to 11:00 "Differentiation of Types of
Arthritis, Especially in Regard to Treatment"

EDWARD H. FREYBERG, M.D., Ann Arbor

11:00 to 11:30 "Renal Insufficiency"

EDGAR HARRIS, M.D., Detroit

11:30 to 12:00 "Recent Contributions to the
Treatment of Addison's Disease"

W. G. THOMPSON, M.D., Chicago

12:00 to 12:30 "Gastroscopy"

H. M. POLLARD, M.D., Ann Arbor

Election of Officers

SECTION ON SURGERY

Chairman: WM. A. HVLAND, M.D., Grand Rapids
Secretary: IRA G. DOWNER, M.D., Detroit

Black and Silver Ballroom, Civic Auditorium

"Symposium on the Acute Abdomen"

A. M.

9:30 to 10:00 "The Acute Appendix"

FREDERICK A. COLLIER, M.D., Ann Arbor

10:00 to 10:30 "Intestinal Obstruction"

EDWARD B. CATTELL, M.D., Boston

10:30 to 11:00 "The Acute Gall Bladder"

L. S. RAVEN, M.D., Philadelphia

11:00 to 11:30 "Perforated Gastric and Duo-
denal Ulcers"

CHARLES JOHNSON, M.D., Detroit

11:30 to 12:00 Discussion and Summary of
Above

WALLMAN WALTERS, M.D., Rochester, Minn.

Election of Officers

SECTION ON OBSTETRICS AND
GYNECOLOGY

Chairman: CLARENCE E. TOSHACH, M.D., Saginaw
Secretary: HARRY A. PEARSE, M.D., Detroit

Supper Club Room—Pantlind Hotel

A. M.

9:30 to 10:00 "Clinical Aspects of Endome-
trial Biopsy in 300 Cases"

LUCIAN GRIFFITH, M.D., and W. L. McBRIDE,
M.D., Grand Rapids

10:00 to 10:45 "Special Features in Anatomy
and Operative Procedures in Surgically
Difficult Growths of the Female Pelvic
Viscera"

ARTHUR H. CURTIS, M.D., Chicago

10:45 to 11:15 "Chorio-epithelioma"

MILD R. WHITE, M.D., Detroit

11:15 to 12:00 "Interstitial or Stromatous En-
dometriosiis"

JAMES GODDALL, M.D., Montreal

Election of Officers

SECTION ON OPHTHALMOLOGY AND
OTOLARYNGOLOGY

Chairman: F. BRUCE FRALICK, M.D., Ann Arbor
Secretary: G. B. McALLISTER, M.D., Lansing

OPHTHALMOLOGY

Director's Room—Civic Auditorium

A. M.

9:00 Appointment of Nominating Committee

9:00 to 9:45 "Indications for Operations in
Strabismus"

JAMES W. WHITE, M.D., New York

9:45 to 10:15 Discussion

10:15 to 10:30 "Factors Concerning Toxicity
of Copper as Intraocular Foreign Body"

LEWIS S. LEE, M.D., Houghton

10:30 to 10:45 "Cycloplegics"

GAYLE H. MURPHY, M.D., Grand Rapids

10:45 to 11:00 "Treatment of Burns of the
Eye"

R. L. WHITNEY, M.D., Detroit

11:00 to 11:15 "Catechomas of the Optic
Nerve"

ALBERT S. BARR, M.D., Ann Arbor

11:15 to 12:00 "Treatment of Less Common
Corneal Lesions"

SAMUEL GIFFORD, M.D., Chicago

12:00 to 12:30 Discussion

WEDNESDAY MORNING

September 20, 1939

OTOLARYNGOLOGY

Room "G"—Civic Auditorium

A. M.

9:30 to 10:30 "Chronic Otitis Media and Its Complications"

HAROLD I. LILLIE, M.D., Rochester, Minn.
Discussion: CARL WENCKE, M.D., Battle Creek

10:30 to 11:00 "Orbital Complications of Sinus Disease"

WALLACE H. STEFFENSEN, M.D., Grand Rapids
Discussion: WM. S. GONNE, M.D., Detroit

11:00 to 11:30 "Modifications of the Submucous Resection"

H. LEE SIMPSON, M.D., Detroit
Discussion: FERRIS SMITH, M.D., Grand Rapids

11:30 to 12:00 "Biological Factors in Chronic Sinus Disease"

R. WALLACE TRED, M.D., Ann Arbor
Discussion: DEWEY HEETDERKS, M.D., Grand Rapids

12:00 to 12:30 "Tumors of the Parotid Gland"

A. C. FURSTENBERG, M.D., Ann Arbor
Discussion: EMIL AMBERG, M.D., Detroit

12:45 Luncheon and Election of Officers

SECTION ON PEDIATRICS

Chairman: WARD L. CHADWICK, M.D., Grand Rapids
Secretary: HARRY A. TOWSLEY, M.D., Ann Arbor

Red Room—Civic Auditorium

A. M.

9:30 "Chemotherapy in Otitis Media in Infants and Children"

MOSES COOPERSTOCK, M.D., Marquette

9:50 "The Necessity of Early Surgical Treatment of Otitis Media"

JAMES H. MAXWELL, M.D., Ann Arbor

10:10 "Chemotherapy of Pneumonia"

JAMES WILSON, M.D., Detroit

10:30 "Vitamins in Relation to Anorexia"

BRENTON M. HAMIL, M.D., Detroit

10:50 "Carotene Absorption by Various Mineral Oils"

ARTHUR C. CURTIS, M.D., Ann Arbor, and
ROBERT S. BALLMER, M.D., Midland

11:10 "Some Psychogenic Aspects of Anorexia"

BERT I. BEVERLY, M.D., Chicago

11:30 "The Relation of Heart Disease to Growth and Vitamin 'A'"

HUGH McCULLOCH, M.D., St. Louis

11:50 Business Meeting and Election of Officers

12:15 Adjournment

SECTION ON DERMATOLOGY AND SYPHILOLOGY

Chairman: RUTH HERBICK, M.D., Grand Rapids

Secretary: EUGENE A. HAND, M.D., Saginaw

Room "F"—Civic Auditorium

A. M.

9:30 "Chairman's Address"

RUTH HERBICK, M.D., Grand Rapids

10:00 "Photography in Dermatology"

ARTHUR A. SCHILLER, M.D., Detroit

10:30 "The Use of Cautey in Dermatology"

UDO J. WILE, M.D., Ann Arbor

11:00 "Introduction of a Relatively Painless Electrolysis Instrument"

EUGENE A. HAND, M.D., Saginaw

11:30 "The Indications and Contra-Indications for Radium and X-Ray Therapy"

C. GUY LANE, M.D., Boston

12:00 (noon) Election of Officers

* * *

Pantlind Hotel

P. M.

12:30 Luncheon—"Allergy in Industrial Dermatitis"

LOUIS SCHWARTZ, M.D., Washington, D.C.

5:30 Reception for Members of the Section of Dermatology and Syphilology
Out of State Speakers as Guests
Cocktail Lounge—Pantlind Hotel

THE 100 EXHIBITS ARE WELL WORTH YOUR TIME

PAPERS WILL BEGIN AND END ON TIME!

Believing there is nothing which makes a scientific meeting more attractive than by the clock promptness and regularity, all meetings will open exactly on time, all speakers will be required to begin their papers exactly on time, and to close exactly on time, in accordance with the schedule in the program. All who attend the meeting, therefore, are requested to assist in attaining this end by noting the schedule carefully and being in attendance accordingly. Any member who arrives five minutes late to hear any particular paper will miss exactly five minutes of that paper!

PROGRAM of GENERAL ASSEMBLIES

WEDNESDAY AFTERNOON
September 20, 1939

Fourth General Assembly

Black and Silver Ballroom, Civic Auditorium

A. S. BRUNK, M.D., Presiding
L. FERNALD FOSTER, M.D., and HARRY A. TOWSLEY,
M.D., Secretaries

P. M.

1:30 "Neuritis"

HENRY W. WOLTMAN, M.D., Rochester,
Minn.



HENRY W. WOLTMAN

M.D. from University of Minnesota in 1913; Ph.D. in Physiology from University of Minnesota 1917. Head of Section on Neurology at Mayo Clinic; Professor of Neurology, The Mayo Foundation. Served as First Lieutenant in the Medical Corps during the war. Fellow of A.M.A., A.C.P., member of Minnesota Society of Neurology and Psychiatry, the Central Neuropsychiatric Association, the American Neurological Association, Sigma Xi and Alpha Omega Alpha.

There is hardly a field of medical practice in which some form of neuritis is not encountered at one time or another. The wide variety of clinical pictures neuritis may present, the many circumstances under which it may occur and the numerous unsolved problems that are constantly intruding themselves, soon make it apparent that each case is deserving of the utmost care in clinical study and judgment.

Commonest cause of neuritis of an isolated nerve is some mechanical injury. Causes of so-called multiple neuritis include bacterial infections, viruses, metabolic disorders, deficiencies, poisons, and vascular diseases.

Treatment must be guided by finding and dealing with the cause, if possible, and by instituting such adjuvant measures as physiotherapy, chemotherapy, roentgenotherapy, diet, and surgery.

2:00 "Skin Diseases Affecting the Hands"

C. GUY LANE, M.D., Boston, Mass.



C. GUY LANE

M.D. Harvard Medical School, 1908; Member of Department of Dermatology, Massachusetts General Hospital, since 1920, Chief since 1932; Head of Department of Dermatology, Harvard Medical School, since 1936; On Editorial Board New England Journal of Medicine, Archives of Dermatology and Syphilology; Member American Board of Dermatology and Syphilology, National Committee on Industrial Dermatoses, American Dermatological Association (president, 1935).

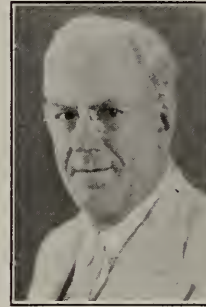
Various manifestations of skin affections on the hands and wrists will be discussed, not only of the diseases which are apt to be localized on these areas, but also of the appearance on the hands of various general skin diseases. The group of diseases presenting vesicles will be discussed, the

squamous group and the keratotic group, and something will be said of significant nail changes. The differential diagnosis of the most important diseases will be reviewed, and emphasis will be placed on certain industrial phases of hand conditions. Treatment will also be discussed and lantern slides of various clinical manifestations will be shown, some of them in color.

2:30 INTERMISSION TO VIEW THE EXHIBITS

3:00 "Strabismus in Children"

JAMES WATSON WHITE, M.D., New York City



JAMES W. WHITE

M.D., Albany, 1905. Professor of Ophthalmology, New York Post Graduate Medical School and Hospital (Executive Officer); Consulting Ophthalmologist, Roosevelt Hospital, New York; Consulting Myologist, Brooklyn Eye and Ear Hospital, Brooklyn; Past Chairman, Eye Section, New York Academy of Medicine; Member, A.M.A., American Ophthalmological Society, American Academy of Ophthalmology and Otolaryngology, New York Academy of Medicine and New York Ophthalmological Society.

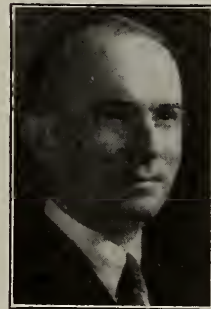
The etiology of strabismus in children varies so widely that mistaken diagnoses and entirely wrong conceptions of a squint are frequent. Hypermetropia is so frequently found that glasses are supposed to correct most cases of convergent, and many cases of divergent strabismus. This has led to many errors in both diagnosis and treatment.

Convergent strabismus may be due to hypermetropia, but myopia may also cause the eyes to cross. They may also cross because of an excessive act of convergence, or to an underaction of the diverging function. These, however, may look very much like strabismus due to an overacting adductor muscle or to an underacting abductor muscle. Divergence strabismus may also be due to hypermetropia, or to myopia, or to an underaction of convergence, or to an overaction of divergence. Vertical strabismus may be due to an overaction or an underaction of the muscles of elevation or depression or to an anomaly of sursumvergence.

Cases are seen where the difference in level seems to be the whole cause or a contributing cause of the excessive convergence or divergence. Various congenital anomalies will be illustrated by lantern slides and drawings.

3:30 "Treatment of Rheumatic Children"

HUGH McCULLOCH, M.D., St. Louis, Mo.



HUGH McCULLOCH

M.D., Johns Hopkins University, 1912. Associate Professor of Pediatrics, Washington University School of Medicine; Associate Physician, St. Louis Children's Hospital; Physician in Charge, Convalescent Department, Children's Hospital; Children's Cardiac Clinic, Washington University Dispensary; Community School. Co-Editor, Journal of Pediatrics; Associate Editor American Heart Journal. Secretary, American Pediatric Society; Founder Member and one time member Board of Directors, American Heart Association; Fellow, American Academy of Pediatrics.

Board of Directors, American Heart Association; Fellow, American Academy of Pediatrics.

WEDNESDAY AFTERNOON

September 20, 1939

Treatment of rheumatic fever and heart disease based on general principles applied to individual patients.

Essential factors to be properly estimated: (1) heredity; (2) social status; (3) time of year; (4) age of patient; (5) number of attacks; (6) type of attack; (7) location and degree of injury to local parts of body.

Patients may be grouped as: I. Rheumatic fever without heart disease; (a) active, and (b) inactive.

II. Rheumatic heart disease without complete failure; (a) active, and (b) inactive.

III. Rheumatic heart disease with congestive failure; (a) active, and (b) inactive.

Discussion of details applicable to patient at any stage of this scheme.

4:00 "Management of Carcinoma of the Cervix"

ARTHUR HALE CURTIS, M.D., Chicago, Ill.



ARTHUR H. CURTIS

M.D., Rush Medical College, 1905; LL.D., University of Wisconsin, 1935; Chief of the Gynecologic Service, Passavant Memorial Hospital, Chicago; Professor of Obstetrics and Gynecology, and Chairman of Department, Northwestern University Medical School.

Presentation of personal experience and views relative to examinations for establishment of the diagnosis. Outline of details in the management of various types of cervical cancer commonly encountered. Lantern demonstration of special features in anatomy concerned, and pictures of unusually interesting cases.

4:30 "Differential Diagnosis and Treatment of Jaundice"

WALTMAN WALTERS, M.D., Rochester, Minn.



WALTMAN WALTERS

M.D., Rush Medical College in 1920; head of Section in Surgery of Mayo Clinic since 1924; Professor Surgery since 1936 in the Mayo Foundation. He is a Commander, Volunteer service in the Medical Corps of the U. S. Naval Reserve. He is a member of the editorial board of "Minnesota Medicine" and Chairman of the editorial board of the "Archives of Surgery." He is a Fellow of the American College of Surgeons, the American Surgical Association, the American Medical Association, the Society of Clinical Surgery, the American Urological Association, Sigma Xi, Phi Beta Kappa, Psi Upsilon, and Alpha Kappa Kappa.

The etiology, symptomatology, and the treatment of obstructive jaundice will be considered. Attention will be directed to the possible sources of error in the diagnosis of stone in the common bile duct, pancreatitis and carcinoma. A résumé will be given of the newer preoperative measures directed to prevent bleeding in cases of jaundice; this will include a consideration of the use of vitamin K.

4:50 End of Fourth General Assembly

SAVE AN ORDER FOR AN M.S.M.S. EXHIBITOR

WEDNESDAY EVENING

September 20, 1939

Fifth General Assembly Public Meeting

Black and Silver Ballroom, Civic Auditorium

HENRY A. LUCE, M.D., Presiding

L. FERNALD FOSTER, M.D., Secretary

PRESIDENT'S NIGHT

P. M.

8:00 1. Call to order by the President

2. Invocation—The Rt. Rev. Lewis Bliss Whittemore, Grand Rapids.

3. Address of Welcome—Wm. R. Torgerson, M.D., President of Kent County Medical Society, Grand Rapids

4. Announcements and Reports of the House of Delegates, by the Secretary

8:15 5. President's Annual Address—Henry A. Luce, M.D., Detroit

6. Induction of Burton R. Corbus, M.D., Grand Rapids, into Office as President of the M.S.M.S.

Presentation of Scroll and Past President's Key to Henry A. Luce, M.D., Detroit
Responses

7. Resolutions and motions

8. Introduction of the President-Elect, and other new officers of the Michigan State Medical Society

8:45 9. The Andrew P. Biddle Oration:
"What Price Depression"

ROCK SLEYSER, M.D., Wauwatosa, Wis., President, American Medical Association



ROCK SLEYSER

M.D., University of Illinois College of Medicine, 1902; Directed the building of the Wisconsin Hospital for the Criminal Insane and later became director of the Milwaukee Sanitarium, which positions he still holds. Elected Secretary of the Wisconsin State Medical Society in 1914 and held this position until 1924 when he was elected President. Since 1925 he has been Treasurer of the Society. From 1918 to 1923 Doctor Sleyser was editor of the Wisconsin Medical Journal. From

1915 to 1926 he served as Delegate to the A.M.A. and during the last four years of that period was Vice Speaker of the House of Delegates. He became trustee of the A.M.A. in 1926 and served until 1937, being chairman of the Board from 1935 to 1937. Elected President of the American Medical Association in 1938. Doctor Sleyser is a fel-

WEDNESDAY EVENING September 20, 1939

low and member of the board of governors of the American College of Physicians, and member of the American Psychiatric Association, the Association for Research in Nervous and Mental Diseases, and the Central Neuropsychiatric Association.

The psychiatrist attempts to evaluate and contract the influences which have shaped the thinking of our people in the pre-war and post-war years. The effects on the individual and on the nation. Conditions which are generating future problems.

Presentation of Biddle Oration Scroll to Dr. Sleyster



A. P. BIDDLE, M.D., Detroit
Patron of Postgraduate Medical Education

10.00 End of Fifth General Assembly

THURSDAY MORNING September 21, 1939

Sixth General Assembly

Black and Silver Ballroom, Civil Auditorium

GEORGE A. SHERMAN, M.D., Presiding
L. FERNALD FOSTER, M.D., and OTTO O. BECK, M.D., Secretaries

A. M.

9:30 "Pre-Natal and Post-Natal Care of a Pregnant Diabetic Woman"

ANTHONY SINDONI, JR., M.D., Philadelphia, Penna.



ANTHONY SINDONI, JR.

Chief of the Department of Metabolism at the Philadelphia General Hospital; Chief Metabolic Consultant at the American Oncologic Hospital; Author of the Book, *Diabetes: A Modern Manual*; and author of numerous papers on diabetes.

In spite of insulins, and other modern care, the pregnant diabetic woman confronts the obstetrician and the internist with a serious problem—the chances of having a live, normal child survive. This desire can be further realized by closer cooperation of the obstetrician and internist; more reliance upon blood chemistry; careful study of individual carbohydrate tolerance throughout pregnancy with insulin dose adjusted according to its variation; optimum and adequate diet; choice of delivery to be decided by the obstetrician, internist and condition of patient. Following delivery increased hyperglycemia or acidosis is not to be overlooked in the mother

though improvement is not infrequent. In the child hypoglycemia reactions are not uncommon, which are to be combated by glucose—orally or intramuscularly. Signs of asphyxia are also to be suspected in the newborn and corrected by respiratory of oxygen and other appropriate measures or respiratory stimulants.

10:00 "Management of Occiput Posterior"

L. A. CALKINS, M.D., Kansas City, Mo.



L. A. CALKINS

M.D., University of Minnesota, 1919; M.S., University of Minnesota, 1920; Ph.D., University of Minnesota, 1921. Assistant Professor Obstetrics and Gynecology, University of Minnesota, 1921-24; Professor of Obstetrics and Gynecology, University of Virginia, Department of Medicine, 1924-29; Professor Obstetrics and Gynecology, University of Kansas, Medical School, 1929 to present time. Co-author with R. E. Scammon "Growth in the Fetal Period."

Member Central Association of Obstetricians and Gynecologists and of American Association of Anatomists; Fellow American Gynecological Society, American Association of Obstetricians, Gynecologists and Abdominal Surgeons.

By carefully compiling 2,500 consecutive labor records it has now been found evident that occiput posterior occurs with about equal frequency with occiput anterior. Maternal morbidity is only slightly, if any, greater in occiput posterior; fetal mortality is the same or less; operative delivery is scarcely more frequent; spontaneous internal rotation will occur with about the same frequency as in occiput anterior. The only definite difference between occiput posterior and occiput anterior is the slightly longer labor in the former.

ACKNOWLEDGMENT: The W. K. Kellogg Foundation is sincerely thanked for its sponsorship of this lecture.

10:30 INTERMISSION TO VIEW THE EXHIBITS

11:00 "Occupational Dermatoses"

LOUIS SCHWARTZ, M.D., Washington, D.C.



LOUIS SCHWARTZ

M.D., Jefferson Medical College, 1905; Entered U. S. Public Health Service 1906, and has served in various parts of the United States, Canada, Alaska, and the Philippines. Engaged in industrial hygiene service since 1920, has done investigations and written papers on Posture, Lighting, Radium poisoning, Lead poisoning, Trachoma, Occupational and other forms of contact Dermatitis, and written a textbook on Occupational Diseases of the Skin. Doctor Schwartz is now in charge of the

Office of Dermatoses Investigations of the U. S. Public Health Service at the National Institute of Health, Bethesda, Maryland.

Occupational dermatoses comprise 70 per cent of all occupational diseases and cost the United States about 4 million dollars per year.

Certain chemicals are primary skin irritants, while others irritate only the hypersensitive.

Knowledge of dermatology and familiarity with the personal and occupational history and occupational processes, together with the proper application and evaluation of the patch test, are necessary for correct diagnoses.

Severe cases should be removed from work; mild cases should be treated and continue at work, as they may thus develop an immunity.

The medicinal treatment should consist of only the mildest lotions and ointments.

THURSDAY MORNING

September 21, 1939

11:30 "Some Practical Points in Diagnosis and Treatment in Otolaryngology of Importance to the General Practitioner"

HENRY M. GOODYEAR, M.D., Cincinnati, O.



HENRY M. GOODYEAR

M.D., Northwestern University, 1915; Assistant Professor of Otolaryngology, Cincinnati University, College of Medicine; Assistant Director (Otolaryngology), Cincinnati General Hospital; Associate Otolaryngologist, Cincinnati Children's Hospital; Attending Otolaryngologist, Christ Hospital. Fellow American Laryngological Society, American Otolological, American Academy of Ophthalmology and Otolaryngology and American College of Surgeons.

The treatment of traumatic injuries to the external ear, and infections of the external auditory canal. Acute and chronic infections of the middle ear and mastoid. What constitutes a dangerous ear?

A brief comment on the use of sulfanilamide in ear and throat infections.

External infections of the nose and nasal fractures. What shall be the immediate treatment? Nasal hemorrhages.

Comments on nasal sinus infections, treatment and the prevention of chronic bronchitis.

Emergency incision for an intraorbital abscess. Retropharyngeal abscess. Throat hemorrhages.

Relation of age to tonsil and adenoid operations. Early symptoms of carcinoma of the larynx.

M.

12:00 "Pyuria: Its Diagnostic Significance"

BUDD C. CORBUS, M.D., Chicago, Ill.



BUDD C. CORBUS

Formerly Professor of Genitourinary Diseases at University of Illinois. Formerly Instructor at Rush Medical College, Chicago, Ill. Founder of the Illinois Social Hygiene Dispensary, Chicago; Director of the Evanston Social Hygiene Dispensary, Evanston; Attending Urologist at Evanston Hospital; Collaborator Cabot's Textbook of Urology; Collaborator History of Urology, American Urological Association, member of American Urological Association.

Pyuria, or pus in the urinary tract, is the most common urological finding that occurs in the general practice of medicine. However, its exact source is often most difficult to discover. With the modern diagnostic methods that the urologist is familiar with plus additional information obtained from subcutaneous urography in children and intravenous and retrograde urography in adults, it should not be so difficult provided a systematic method of procedure in hunting for the original foci of infection is closely adhered to.

In order to better study the etiologic factors that produce pyuria, infections of the urinary tract are considered as coming from two sources; i.e.,

- From outside of the body,
- From inside the body.

P. M.

12:30 End of Sixth General Assembly Luncheon—

DON'T FAIL TO VISIT THE \$60,000 EXHIBIT ARRANGED FOR YOUR CONVENIENCE

THURSDAY AFTERNOON

September 21, 1939

Seventh General Assembly

Black and Silver Ballroom, Civic Auditorium

H. ALLEN MOYER, M.D., Presiding
L. FERNALD FOSTER, M.D., and EUGENE HAND, M.D., Secretaries

PREVENTIVE MEDICINE ASSEMBLY

1:30 "The Importance of Latent Syphilis from the Standpoint of the General Practitioner"

HAROLD N. COLE, M.D., Cleveland, O.



HAROLD N. COLE

Professor of Dermatology and Syphilology, Western Reserve University; Member, Council of Pharmacy and Chemistry, American Medical Association; Member, American Board of Dermatology and Syphilology; Former Secretary and President of the Section on Dermatology and Syphilology, American Medical Association; Former President, American Dermatological Association; Member Cooperative Clinical Group and of the Surgeon General's Advisory Committee on Syphilis.

The word latent is derived from the Latin word "latere," to be hidden or concealed. Latent syphilis is a type, usually revealing itself by positive serologic blood tests. Physical examinations may be negative, and yet completely beneath the surface the disease may be really active, as in a syphilitic aortitis.

Latent syphilis is important because it is so often unrecognized, and even unknown to its victim. This is especially true of women, and the percentage of asymptomatic syphilitic infections in women runs very high.

Yet latent syphilis may still be contagious, and the incidence of conjugal infection is high. Moreover, the disease may be transferred from mother to child in pregnancy and by blood donors in transfusion.

Routine use of serologic blood tests should be used by the medical man in all pregnant women and in all new cases seen in practice.

The earlier latent syphilis is discovered and the patient put under treatment, the better the response.

Ordinarily latent syphilis responds nicely to routine treatment with alternate courses of accepted arsenicals and bismuth salts. Such cases should receive more of the heavy metal than of arsenical treatment.

2:00 "The Modern Approach to the Earlier Diagnosis of Pulmonary Tuberculosis"

JAMES ALEXANDER MILLER, M.D., New York City



JAMES A. MILLER

Physician-in-Charge of the Tuberculosis Service at Bellevue Hospital for thirty-five years, now Consultant Physician in the same service. Professor of Clinical Medicine, College of Physicians and Surgeons, Columbia; Consultant Physician at the Presbyterian Hospital, Post-Graduate Hospital and Brooklyn Hospital. Formerly President of the New York Tuberculosis Association, National Tuberculosis Association, New York Academy of Medicine and at present President of the Trudeau Sanatorium.

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The really early diagnosis of pulmonary tuberculosis is still comparatively rare. What in this paper is termed the modern approach to earlier diagnosis is based upon the concept of the pathogenesis of the disease. It is now more and more generally recognized that pulmonary tuberculosis is secondary to a previous lesion usually in the tracheobronchial lymph nodes and that the infection reaches the lungs through the lymph and blood stream.

The first lesions which are there produced are very small and usually of no clinical significance and can be recognized only by careful x-ray examination. It is from these lesions, however, that the majority of serious cases of pulmonary tuberculosis arise.

The reasons for this are discussed in this paper as well as the evidences of their change from benign to malignant lesions. The x-ray, therefore, becomes the most important means at our disposal and interpretation of the x-ray findings is the measure of our ability to make earlier diagnosis. X-ray surveys of apparently well people are becoming more and more common and it is through the proper interpretation of such x-rays and the following up of the subsequent behavior of apparently inactive lesions that the really early diagnosis of clinically active tuberculosis is to be made.

ACKNOWLEDGMENT: The Michigan Tuberculosis Association is sincerely thanked for its sponsorship of this lecture.

2:30 INTERMISSION TO VIEW THE EXHIBITS

3:00 "Sickness Disability Among Wage-Earners"

McIVER WOODY, M.D., New York City



McIVER WOODY

M.D., Harvard, 1912; Secretary of Faculty of Medicine, 1917-18; University of Tennessee: Dean and Professor of Surgery, 1920-21; Medical Department, Standard Oil Company of New Jersey 1922 to present; President American Association of Industrial Physicians and Surgeons.

Statistics show that, in organizations where accident prevention has been most successful, fifteen to twenty days are lost because of sickness for every day that is lost because of accident. Although industrial physicians are primarily concerned with accidents and occupational diseases, and rightly so, they can do much to control the incidence of ordinary illness within factory and plant: first, by seeing to it that when defects are brought to light at physical examination, the family physician is consulted without delay; and second, by collecting statistics on loss of time from sickness and studying them more critically than ever before.

3:30 "The Control of Pneumonia"

LOYD D. FELTON, M.D., Washington, D. C.



LOYD D. FELTON

tion for Advancement of Science, Sigma Xi, Phi Beta Kappa.

M.D., Johns Hopkins, 1916; Sc.D., Wooster, 1925. Associate in Pathology and Bacteriology, Johns Hopkins, 1916-20; Associate in Pathology, Rockefeller Institute, 1920-22; Assistant Professor of Preventive Medicine and Hygiene, Harvard Medical, 1922-35; Associate in Pathology and Bacteriology, Johns Hopkins, 1935-38; Senior Surgeon, U. S. Public Health Service, 1938 to present; Member: American Chemical Society, Society American Bacteriologists, American Association

Control of pneumonia necessitates a study of possible prevention and improvement in methods of treatment. Prevention includes an understanding of the epidemiology of the disease taking into consideration variations in the infective agent and in factors which influence host resistance. Attempts have been made to estimate the host resistance by measuring the antibody response following the injection of antigenic polysaccharide. It has been observed that the same dose of a standard antigen stimulates response varying in degree in different individuals. It is possible that this variation is a measure of individual susceptibility to pneumonia and that the general population may be divided into susceptibles and non-susceptibles.

Significant advances have been made in improvement of treatment of pneumonia. Specific serum has established a base line by which any new form of treatment can be judged. For certainly mortality rate can be reduced by this form of treatment. The recently developed sulfapyridine apparently is at least as effective and less costly. But until a more extensive study of the pharmacology of the drug has been made, it should be used with caution. Combined serum and sulfapyridine treatment may be the most effective safe procedure.

ACKNOWLEDGMENT: The Michigan Department of Health is sincerely thanked for its sponsorship of this lecture.

4:00 "Surgical Treatment of Breast Cancer"

BENJAMIN RICE SHORE, M.D., New York City



BENJAMIN R. SHORE

A.B., University of Missouri, 1920; M.D., Harvard University, 1924; Fellow American College of Surgeons; Attending Surgeon St. Luke's Hospital, New York City.

Cancer of the breast is primarily a surgical disease and, beginning with the time a specimen is taken for histologic study, the patient should be in the hands of a surgeon competent, because of pathological and technical training, to proceed with radical surgery at the time. While we recognize that aspiration or punch biopsies in very competent hands have proved satisfactory, we do not believe that the average physician is either properly educated or technically able to remove adequate tissue by these means for the diagnosis of breast tumors in his patients. The risks inherent in this practice, which is rapidly gathering popularity, are considerable and its general use should be discouraged.

4:30 End of Seventh General Assembly

YOUR FRIENDS IN THE EXHIBIT HAVE SOMETHING NEW TO SHOW YOU

The Maternal Health Committee announces that a complimentary get-together luncheon will be held at the Hotel Pantlind, Room 222, on Thursday, September 21, 1939, at 12:30 p.m., to which all members, past and present, are cordially invited. L. A. Calkins, M.D., University of Kansas, will give a short address following the luncheon. The W. K. Kellogg Foundation is sponsoring the luncheon.

THURSDAY EVENING
September 21, 1939

Eighth General Assembly
Public Meeting

Black and Silver Ballroom, Civic Auditorium

JAMES D. BRUCE, M.D., Presiding
L. FERNALD FOSTER, M.D., Secretary

POSTGRADUATE CONVOCATION

P. M.
8:00 1. Call to order

2. (a) "Postgraduate Education—Michigan's Experience"

JAMES D. BRUCE, M.D., Ann Arbor
Vice President in Charge of University Relations, University of Michigan; Chairman, Committee on Postgraduate Medical Education, Michigan State Medical Society.

(b) Presentation of Certificates of Associate Fellowship in Postgraduate Education, Michigan State Medical Society.

8:30 3. Address

JAMES ALEXANDER MILLER, M.D., New York City



JAMES A. MILLER

An appreciation of what Michigan is doing in Continuing Medical Education for practitioners in medicine, as well as an appreciation of the importance of the movement; comments and suggestions concerning the ways and means by which Continuing Medical Education can be most satisfactorily organized. Improving the quality of medical practice is to be the best answer to the problems which confront the profession in connection with various governmental and social experiments that are being suggested.

10:00 End of Eighth General Assembly

A Special Meeting on Medical Service Problems will be held Sunday, September 17, 1939, at 8:30 P. M. in the Grand Ballroom, Pantlind Hotel, Grand Rapids. All M.S.M.S. Delegates and Members are invited and urged to attend this session at which Group Medical Care Plans, Welfare, and the Afflicted-Crippled Children Laws will be discussed.

FRIDAY MORNING
September 22, 1939

Ninth General Assembly

Black and Silver Ballroom, Civic Auditorium

WM. E. BARSTOW, M.D., Presiding
L. FERNALD FOSTER, M.D., and IRA G. DOWNER, M.D., Secretaries

A. M.

9:30 "Recent Trends in the Investigation and Treatment of Sterility"

CARL P. HUBER, M.D., Indianapolis, Ind.



M.D., University of Michigan Medical School, 1928; member of Michigan Medical Faculty, Department of Obstetrics and Gynecology, until 1936; Consulting Obstetrician and Gynecologist, Chicago Lying-in Hospital and Instructor in Gynecology and Obstetrics, University of Chicago, 1936-38. At present, Assistant Professor of Obstetrics and Director of Research in Obstetrics and Gynecology, Indiana University, with active direction of Postgraduate education in Obstetrics under auspices of Indiana University, the Indiana State Medical Association and the State Board of Health.

The major causes of sterility are reviewed. A plan for investigation of the sterile couple is presented and illustrated. Emphasis is placed from the therapeutic standpoint upon the endocrine relationships essential for conception and continuation of pregnancy. The indications for hormone therapy are stressed and results with the gonadotropic hormone from pregnant mare serum are discussed.

10:00 "Diagnosis and Treatment of Carcinoma of the Colon and Rectum"

THOMAS E. JONES, M.D., Cleveland, O.



M.D., Western Reserve University Medical School, 1916; Surgical Staff of The Cleveland Clinic since its inception in 1920.

Advancement in technical aids in the diagnosis of carcinoma of the colon in recent years have aided materially in early diagnosis. However, the interpretation of early clinical manifestations of this condition is likewise suffering from it. It has become too easy to say, "Have an X-ray," which frequently will not demonstrate an early lesion or it may be confused with other conditions. Clinical interpretation cannot be dispensed with. In the treatment, surgery is still the choice if there is no obvious metastasis or if the physical condition of the patient does not justify it. Types of operations are described, with special emphasis on the value of the combined abdominoperineal operation in carcinoma of the rectum.

10:30 INTERMISSION TO VIEW THE EXHIBITS

FRIDAY MORNING September 22, 1939

11:00 "Psychiatry in the Service of the Schools"

HENRY C. SCHUMACHER, M.D., Cleveland, O.



H. C. SCHUMACHER

Work, Phi Beta Pi, and Alpha Omega Alpha.

Many educational problems are the result of maladjustments of adults—parents and/or teachers—and child which are amenable to psychiatric treatment. This holds for causes that are commonly looked upon as somatic, such as sensory disturbances and nutritional lacks, as much as for those causes that might be subsumed under "conflict" and attempts at adjustment thereto. This paper will aid at showing that "problem behavior" involves the whole child in his total setting. And, furthermore, that such behavior is an index of poor health and hence a medical problem requiring for its solution sound medical training as well as knowledge of what certain auxiliary sciences can contribute to an appraisal of the total situation and to the treatment of certain of the underlying causes.

11:30 "Hygiene of Infancy and Childhood"

RICHARD M. SMITH, M.D., Boston, Mass.



RICHARD M. SMITH

Hygiene is the science of preserving health. The fact that most adults show some evidence of disease indicates that efforts to preserve health have not been successful in relation to the majority of individuals.

Hereditary, pre-natal and natal causes all influence health.

Provided an infant is born without handicaps, the physician may exercise a controlling influence upon his health. It is essential that physicians supervising children should be familiar with the normal growth and development pattern of the child and be cognizant of the factors which favor the progress of the orderly pattern and also of those factors which may cause unfavorable deviation.

Periodic health examinations furnish the opportunities for contact with the child and the education of the parents in child care.

Among the important factors determining health are food, daily routine, environment, psychological adjustments and prevention of disease.

ACKNOWLEDGMENT: The Children's Fund of Michigan is sincerely thanked for its sponsorship of this lecture.

M.D., St. Louis University School of Medicine, 1919; LL.D., St. Benedict's College, 1938. Diplomate American Board of Psychiatry and Neurology, 1939; Director Child Guidance Clinic, Cleveland, 1926 to present; Associate in Pediatrics, School of Medicine, Western Reserve University, 1933 to present; Fellow American Psychiatric Association, American Orthopsychiatric Association; member American Association for Advancement of Science, National Conference of Social

M.

12:00 "State Programs of Service for Crippled Children Under Social Security Act"

ROBERT C. HOOD, M.D., Washington, D. C.



ROBERT C. HOOD

M.D., Johns Hopkins School of Medicine, 1916; in 1917 he was commissioned in the Medical Officers Reserve Corps of the Army and served two years in England and France, where he was promoted to rank of Captain. After the Armistice he studied pediatrics in England, following which he engaged in pediatric work in New York City and Cincinnati. Doctor Hood was engaged in private pediatric practice in Clarksburg, West Virginia, for thirteen years. In 1936,

he was given a Civil Service Appointment as Director of the Crippled Children's Division of the Children's Bureau, U. S. Department of Labor. Doctor Hood has immediate supervision of the administration of that part of the Social Security Act relating to Federal grants to the States to enable them to extend and improve their services for crippled children.

Services for crippled children under Title V, part 2, of the Social Security Act include provision for the location, diagnosis, hospitalization, medical and surgical treatment, and after-care for crippled children.

Federal funds are made available to the State in the form of grants-in-aid to official agencies established under State law, which administer the programs. At the present time, State plans are in operation in all of the States, Alaska, Hawaii, and the District of Columbia.

Details of administration and procedures will be discussed.

ACKNOWLEDGMENT: The Children's Bureau, Washington, D. C., is sincerely thanked for its sponsorship of this lecture.

P. M.

12:30 End of Ninth General Assembly Luncheon—

HAVE YOU VISITED THE WONDERFUL EXHIBIT?

FRIDAY AFTERNOON September 22, 1939

Tenth General Assembly

Black and Silver Ballroom, Civic Auditorium

F. T. ANDREWS, M.D., Presiding

L. FERNALD FOSTER, M.D., and CLYDE K. HASLEY, M.D., Secretaries

1:30 "Recent Advances in the Diagnosis and Treatment of Thyroid Disease"

GEORGE CRILE, JR., M.D., Cleveland, O.



GEORGE CRILE, JR.

M.D., Harvard Medical School, 1933; Fellow at Cleveland Clinic Foundation from 1934 to 1937; for six months during 1937 Resident in Gynecology at the Roosevelt Hospital, New York, and a member of the Surgical Staff at the Cleveland Clinic since November 1937.

All large goiters, all intrathoracic goiters, approximately 90 per cent of all malignant tumors of the thyroid, and 50 per cent of all cases of hyperthyroidism, are the end-result of iodine deficiency. The physiology of iodine deficiency and of the development of these

FRIDAY AFTERNOON
September 22, 1939

pathological changes is discussed. Clinical and laboratory methods for diagnosis of hyperthyroidism are evaluated. The necessity of individualizing the treatment of each patient with hyperthyroidism is emphasized, and it is pointed out that each group of cases presents special problems in the treatment of which special therapy should be used if the best results are to be obtained.

2:00 "The Prevention and Cure of Deformity and Disability after Poliomyelitis"

PHILIP LEWIN, M.D., Chicago, Ill.



PHILIP LEWIN

M.D., Rush Medical School, University of Chicago, 1911; Associate Professor of Orthopedic Surgery, Northwestern University Medical School; Attending Orthopedic Surgeon at Cook County Hospital and Michael Reese Hospital; Professor of Orthopedic Surgery, Cook County Graduate School of Medicine; Consulting Orthopedic Surgeon, Municipal Contagious Disease Hospital, Chicago; Member of the Committee on Prevention and Treatment of After-Effects, of the National Foundation for Infantile Paralysis.
The highlights of my paper include a discussion of the treatment of a patient with poliomyelitis from the moment the diagnosis is made or suspected until he is restored to his maximum physical condition. The discussion will include a résumé of orthopedic care of the patient in the home, in the farm house, in the contagious ward of a general hospital, in an orthopedic hospital. The general practitioner should know what can be accomplished by surgery, even if he isn't trained to do it, even if he doesn't want to do it, or the patients won't accept his advice. I shall include care during the acute stage and during the later stages. I shall discuss what to do when an epidemic is in progress, or is threatening, and what not to do. The paper will be illustrated with lantern slides. There will be ten minutes set aside for a question box. The visitors are encouraged to send up questions they would like to have discussed or answered.

ACKNOWLEDGMENT: The Michigan Crippled Children Commission is sincerely thanked for its sponsorship of this lecture.

2:30 INTERMISSION TO VIEW THE EXHIBITS

3:00 "Treatment of Pneumonia with Sulfapyridine and Specific Serum"

MAXWELL FINLAND, M.D., Boston, Mass.



MAXWELL FINLAND

Associate in Medicine, Harvard Medical School; Assistant Physician Thorndike Memorial Laboratory; Junior Visiting Physician, Boston City Hospital.

Data are presented to indicate that both specific serums and sulfapyridine are highly effective curative agents in the treatment of pneumonia. An attempt is made to indicate, as far as present data permit, the conditions under which each of these forms of treatment are

most effective when used separately or in combination.

3:30 "The Present Medical and Surgical Status of the Chronic Gall Bladder"

WARREN H. COLE, M.D., Chicago, Ill.



WARREN H. COLE.

M.D., Washington University, School of Medicine, 1920. Spent one year in internal medicine in Baltimore and returned to St. Louis, where he became associated with the Department of Surgery at Washington University. Since September 1, 1936, he has been Professor of Surgery at the University of Illinois. He is the co-author of a book entitled "Diseases of the Gall Bladder and Bile Ducts," and another entitled "Textbook of General Surgery."

The first consideration in treatment of gall-bladder disease is correctness of diagnosis; the second deals with the problem as to whether operation is indicated. In diagnosis the most important feature is to eliminate other lesions, so many of which simulate cholecystitis. Cholecystography, gastro-intestinal x-ray series, gastric analysis and other laboratory aids will be helpful. Unfortunately medical treatment is relatively ineffectual in actually eliminating cholelithic disease, but has a very important role in the care of patients who have mild or infrequent attacks and who may not need cholecystectomy. Pre-operative and postoperative care including the use of vitamin K, the Wangenstein tube, etc., will be discussed.

4:00 "Coronary Disease, Including Angina Pectoris"

WM. D. STROUD, M.D., Philadelphia, Penna.



WM. D. STROUD

M.D., University of Pennsylvania, 1916; Honorary Surgeon to First Troop Philadelphia City Cavalry; Cardiologist to the Pennsylvania Hospital; Director of the Heart Station and Chief of the Adult and Children's Heart Clinics; Professor of Cardiology of the University of Pennsylvania Graduate School of Medicine; Consulting Cardiologist to the Graduate Hospital; President American Heart Association; Chairman of the Cardiac Clinics Committee;

Treasurer of the American College of Physicians and member of the Board of Regents and of the Executive Committee.

This subject is not only of importance because a high percentage of physicians die from its effects, but also since it is so often associated with hypertension. This triad, hypertension, coronary insufficiency and cardiac infarction includes, by far, the largest number of patients seen by the internist and general practitioner.

The possible reasons for the apparent steady increase in incidence of these cases and the possibilities of early diagnosis and reduction of factors which seem to contribute toward the progress of this pathological picture, will be reviewed. The pathological changes, physiological reactions and differential diagnosis, prognosis and treatment will be discussed, as well as the age and sex incidence, plus the apparent relationship between disease of the gastro-intestinal tract and gall bladder, which seems to be of importance. A number of cases suggesting the close association between gall bladder disease and coronary insufficiency with "angina of effort" will be reviewed.

Optimism by the physicians with reassurance are the two most important forms of treatment. Too often the physician frightens the patient for no good reason. A careful review of the home and business situation with possible readjustment is essential. Pharmacological and surgical methods of treatment will also be discussed.

4:30 End of Tenth General Assembly and the Convention

TECHNICAL EXHIBITS

Abbott Laboratories
North Chicago, Illinois



You will find a hearty welcome in the Abbott booth, where a comprehensive selection of leading specialties awaits your inspection.

Abbott trained representatives invite your questions and will gladly discuss the newer products with you.

Space No. B-13

W. A. Baum Co. Inc.
New York, New York



W. A. Baum Co. Inc. will show for the first time in Michigan the new **STANDBY Model** Life-time Baumanometer. Routine office bloodpressure readings are greatly

simplified by this new office Model. Standing on the floor, it is 38½" high. Made of die cast magnesium (Dow Metal), it weighs only 6½ pounds. The **STANDBY Model** is practical and pleasing in design and proportion and possesses other new and original features.

Space No. D-7

A. S. Aloe Company
St. Louis, Missouri

Space No. C-12

The A. S. Aloe Company exhibit will include a complete line of physician's office equipment and instruments. Featured will be Aloe Steeline treatment room furniture, with the new Irrigator Table, and the new Aloe Short Wave Unit. Aloe representatives E. E. Davis and A. A. Vaughan will be in attendance.

The Arlington Chemical Company
Yonkers, New York

Space No. D-12

The Arlington Chemical Co. will exhibit their entire line of pharmaceuticals and biological products. We believe the physicians will be especially interested in the \$1.00 diagnostic pollen outfits, a sample of which will be extended with our compliments, and also the recently issued \$9.75 diagnostic protein outfit containing approximately 1,500 tests. Our representatives will be very glad to discuss with physicians any of their allergic problems.

Bard-Parker Company
Danbury, Connecticut

Space No. F-15

Among the Bard-Parker products exhibited are Rib-Back Blades, Renewable Edge Stainless Steel Scissors, Lahey Lock Forceps, Formaldehyde Germicide and Containers for rustproof sterilization of surgical instruments, and Hematological Case for obtaining blood samples at the bedside.

Barnett Laboratories
Chicago, Illinois

Space No. A-4

The Barnett Laboratories is featuring clinical photographic equipment. Their synchronized lighting arrangement is adaptable to popular cameras such as the Leica, Contax, Perfex, Korelle Reflex, Graflex, etc. Focusing attachments for the Perfex, Leica and Contax cameras, allowing them to be used for copying and photo-microscopy will also be shown. A reduced eye demonstrating the manner in which light rays focus upon retinas of myopic, emmetropic and hyperopic individuals will be demonstrated.

Barry Allergy Laboratory Inc.
Detroit, Michigan

Space No. F-5

The Barry Allergy Laboratory will exhibit the most recent developments in testing and treatment materials for the management of the allergic patient, particularly from the general practitioner standpoint. Services and materials and the methods of preparation, based on the individual patient's history and reactions, will also be demonstrated. Specialized services for hospitals, clinics, and specialists will be described.

Becton, Dickinson & Co.
Rutherford, New Jersey

Space No. E-18

Becton, Dickinson & Company will exhibit a full line of all glass syringes, rustless steel needles, Asepto syringes, thermometers, Ace bandages and diagnostic instruments.

The attendants at the booth will be competent to answer questions regarding use, care, sterilization and standardization of all items and will be happy to discuss problems pertaining to the instruments at any time.

Boericke & Tafel
Chicago, Illinois

Space No. F-3

The Exhibit of Boericke & Tafel, under supervision of their genial representative, Mr. Frank B. Monroe of Battle Creek, is featuring Concentrated Liver Extract (oral) for pernicious anemia. Their display of Pharmaceuticals and books is captioned under the unique slogan "Over a Century of Service."

The Borden Company
New York, New York

Space No. F-19



New, yet already remarkably successful in infant feeding, **BIOLAC** is exhibited for the first time in Michigan at the Borden Booth. Competent representatives will gladly provide specific, helpful information on the unique virtues of this liquid modified milk.

Also exhibited are other Borden products, notably Dryco, Special Dryco, Klim, Beta Lactose, Merrell-Soule Products and Borden's Irradiated Evaporated Milks.

The Burrows Company
Chicago, Illinois

Space No. D-20

The Burrows Company will display the electric Suction and Ether Unit, Superior Electric Breast Pump, the Dud-O-Vac, an automatic siphon suction apparatus, and many other special items interesting to the medical profession.

We trust we may have the pleasure of a visit from you.

Cameron Surgical Specialty Co.
Chicago, Illinois

Space No. A-6

See the new improved Cameron Electro-Diagnostoset, the portable Color-Flash Clinical

Camera, the combination Projectoray Diagnostic & Operating Lamp and Projector, the office model Radio-Frequency Cauteradio, and the heavy-duty Cauterodynes for all phases of electro-surgery and electro-coagulation.

S. H. Camp & Company Space No. B-2
Jackson, Michigan



Representatives of S. H. Camp and Company will be in attendance at Booth B-2 to discuss their complete line of physiological supports. Anatomical

supports for prenatal, postnatal, ptosis, hernia and orthopedic conditions will be shown. There are new, additional, useful ideas in design together with improved phases of construction that will interest you.

Coca-Cola Company Space No. F-12
Atlanta, Georgia

Coca-Cola will be served to the physicians with the compliments of the Coca-Cola Company.

Cottrell-Clarke Inc. Space No. F-18
Detroit, Michigan

As stationers and printers to the medical profession for over thirty-eight years, the Detroit house of Cottrell-Clarke, Inc., has evolved many interesting developments for better and more efficient case record keeping. Several items in particular will be shown for the first time at this year's exhibit.

R. B. Davis Company Space No. F-20
Hoboken, New Jersey

Enjoy a drink of delicious Cocomalt at the R. B. Davis Co. Booth. Cocomalt is refreshing, nourishing and of the highest quality. It has a rich content of Vitamins A, B₁, and D, Calcium and Phosphorus to aid in the development of strong bones and sound teeth; Iron for blood; Protein for strength and muscle; Carbohydrate for energy.



Dazor Manufacturing Corp. Space No. B-6
St. Louis, Missouri

See the Dazor Floating Lamp—A touch actually floats it to any position! And, then it stays in that position! It's the only light on the market that achieves the perfect position for gynecological and rectal work—a perfect lamp for the general practitioner.

Detroit Creamery Company Spaces No. E-16-17
Detroit, Michigan

This exhibit will represent the Sealtest Laboratory System which includes the Detroit Creamery, Ebling Creamery, Grand Rapids Creamery, Ann Arbor Dairy, and the Arctic Dairy. The Sealtest system of laboratory control will be stressed. There will be charts, photographs, and designs showing the processing of the milk from farm to doorstep. Be sure to see the new Homogenized, Vitamin D Milk!

Detroit First Aid Company Space No. A-7
Detroit, Michigan

Mollo-pedic Shoes solve the problem of foot covering when bulky bandage or cast forbids the use of ordinary shoes. They are made of soft fabric with sponge rubber soles. Patented lacing permits adjustment to any bandage or cast.

Mollo-pedic shoes are available in four sizes, at leading surgical supply dealers.

Detroit X-Ray Sales Co. Space No. B-11
Detroit, Michigan

The Detroit X-Ray Sales Company takes pleas-

ure in again exhibiting late developments in the X-ray field by the F. Mattern Manufacturing Company, of Chicago. They will show two new Units, which were demonstrated for the first time at the A.M.A. at St. Louis, and caused wide-spread comment and enthusiasm. A cordial invitation is extended to Members of the Society to visit their booth, and witness demonstration.

Dictaphone Corporation
New York, New York

Space No. A-9



The Dictaphone Corporation cordially invites you to inspect its display of Dictaphone equipment and to discuss its application in the Medical Profession with those in

attendance. Our Dictaphone Dictating Machine with Nuphonic Recording, Transcribing Machine with Nuphonic Reproduction, together with S-12 Shaving Machine will be on demonstration.

Dietene Company
Minneapolis, Minnesota

Space No. B-14



Dietene—council-accepted for use when reducing. A single food low in calories, rich in protein, minerals, and vitamins. Patients cooperate on the Dietene regime, because Dietene meals are satisfying, easy to prepare, and economical. You are invited to stop at Booth B-14 and sample this delicious, low calorie food.

Duke Laboratories, Inc.
Stamford, Connecticut

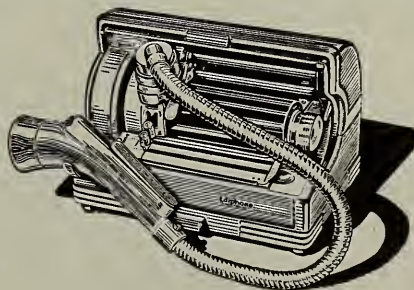
Space No. B-3

Duke Laboratories, Inc., specialize in the Manufacture of elastic adhesive plasters. The representatives in charge will be glad to demonstrate Elastoplast, the original elastic adhesive plaster bandage, and Mediplast, the ready-for-use emergency dressing. Be sure to get a supply of Nivea, the surgeon's hand creme and superfatted Basis Soap, the detergent for tender, irritated skin.

The Ediphone Co.
Lansing, Michigan

Space No. E-7

The Ediphone Voicewriter fills a special need of physicians—office and hospital use—for



prompt and accurate record of case histories. Because of instant availability, histories can be dictated immediately after examination in considerable less time than required under shorthand. Thomas A. Edison, Inc., manufacturers of the Ediphone, recently introduced a new Desk model. Placed on the desk, it is ready at all hours to handle office routine.

The Evans-Sherratt Company
Detroit, Michigan

Space No. A-6

H. G. Fischer & Co.
Chicago, Illinois

Space No. F-4



H. G. Fischer & Co. 1939 models of x-ray and short wave apparatus are so distinctive, both in improved performance and in various instances greatly lowered price, that every physician should consider inspection a convention obligation. The complete H. G.

Fischer & Co. line includes shockproof x-ray apparatus, short wave units, combination cabinets, galvanic and wave generators, ultra violet and infra red lamps and many other units, accessories and supplies. Physicians attending the convention are invited to ask for demonstrations of apparatus in which they are interested and to consult with Fischer representatives regarding technics made available by Fischer apparatus.

C. B. Fleet Co., Inc.
Lynchburg, Virginia

Space No. E-12

Phospho-Soda (Fleet) is a highly concentrated and purified, aqueous solution of sodium phosphates. It is non-toxic, rapid but mild in action without irritation of the gastric or intestinal mucosa. Indicated for hepatic dysfunction, and for its thorough eliminating and cleansing action on the upper and lower gut.

General Electric X-Ray Corporation
Detroit, Michigan

Space No. F-11



We cordially invite the physicians and their wives who attend this meeting to make use of the lounge facilities provided at our booth for their comfort. We particularly look forward to a visit from our customers and invite all physicians who may have

technical problems, to discuss them with our Staff in attendance. For those who are interested, we would welcome the opportunity to tell you of our contribution in new and improved physiotherapy and x-ray equipment since the 1938 State Meeting.

Gerber Products Company
Fremont, Michigan

Space No. E-11



The new Gerber's Cereal Food will be shown at Gerber's booth. Samples and professional literature about this Cereal product as well as the other Gerber Baby Foods will be sent to registrants at the booth.

Hack Shoe Company
Detroit, Michigan

Space No. B-16

Hack Shoe Company, "Shoe Therapists to the Profession," shoes for normal and abnormal

feet. Football, basketball, bowling and other athletic shoes with Hack's patented "Tri-Balance" supportive features will be exhibited. Also shown, Hack Shoes for Children: Thomas heels and long medial counter extensions. Hack-O-Pedic Clubfoot Shoes complete the exhibit.

Hanovia Chemical & Mfg. Co.
Newark, New Jersey

Space No. B-15

The very latest in ultraviolet equipment will be demonstrated, including the outstanding uses of ultraviolet radiation in the fields of science, medicine and public health. Don't fail to see our new line of self-lighting ultraviolet high-pressure mercury arc lamps, Short and Ultra Short wave apparatus, Sollux Radiant Heat Lamps and our latest development, quartz ultraviolet lamps for air sanitation.

J. F. Hartz Co.
Detroit, Michigan

Spaces No. F-7-8

Equipment, apparatus, pharmaceutical materials to assist the profession in "Keeping pace with modern medicine" will be displayed at the convention. Be sure to see a demonstration of the Hartz-o-therm, a portable shortwave diathermy which does surgery and sells for only \$157.50. The Hartz Company looks forward to meeting you.

H. J. Heinz Company
Pittsburgh, Pennsylvania

Space No. E-2

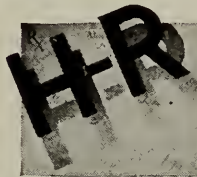


Heinz Junior Foods, a new variety for older babies, is on display. The Heinz representative is ready to assist you to inspect this new product, as well as the Heinz Strained Foods also on display.

Register at the Heinz booth for helpful information.

Holland-Rantos Company, Inc.
New York, New York

Space No. B-10



A motion picture demonstration of modern contraception technic will be the feature at the Holland-Rantos booth, together with the display of their products, the Koromex diaphragm and jelly and their new-

er items, the H-R Emulsion jelly and the diaphragm introducer. Please be sure to call and get your complimentary copy of the Physicians' Guide, a valuable manual for the physicians interested in the contraceptive technic.

Horlick's Malted Milk Corporation
Racine, Wisconsin

Space No. D-6



Nourishing, digestible, appetizing—these are the three outstanding qualities for which HORLICK'S is famous, whether in powder or tablet form. Visit the exhibit in Booth No. D-6. You will be interested in the many uses from infant feeding to old age—note especially the convenience of the Tablets in ulcer diets.

The G. A. Ingram Co.
Detroit, Michigan

Spaces No. D-1-2-3



The Ingram Company's display at our coming Convention will be very complete and interesting to all. It will include a complete line of both wood and metal furniture, the latest developments in electrical equipment, as well as complete lines of stainless steel instruments of American and Swedish manufacture.

They will show the Syfogen outfit—a nasal therapy unit effective in the treatment of sinus infection, catarrhal deafness, and other stubborn defects of the nose, throat, and ears. Note how easily the unit operates.

Jones Metabolism Equipment Co.
Chicago, Illinois

Space No. C-18

The Jones Metabolism Equipment Company will feature as their display the Jones MOTOR BASAL metabolism apparatus.

A special feature of this unit is that it contains no water and requires no calculation in the determination of the basal metabolic rate.

The Jones Surgical Supply Co.
Cleveland, Ohio

Space No. F-1

The Jones Surgical Supply Co. will again display at the Annual Michigan State Medical Meeting. The display will consist of surgical instruments, pharmaceutical specialties, and the new modern General Automatic Short Wave apparatus. The display will be attended by Mr. Max Warren of Owosso, Michigan, and Mr. L. G. (Jack) Voorhees of Cleveland, Ohio.

A. Kuhlman & Co.
Detroit, Michigan

Space No. C-3

A. Kuhlman & Company, the oldest surgical supply house in Michigan, will show selected surgical instruments for the general practitioner and specialist, including several new items for the urologists and the Johnston Modified Miller Abbott Tube for intestinal intubation, also the new ice and water bag for sinus application.

Lederle Laboratories, Inc.
New York, New York

Space No. B-8



The Lederle Laboratories, Inc., will exhibit their line of Specific Antipneumococcic Sera for all types of Pneumococcus Pneumonias. Also on display will be serum's newest ally, the drug Sulfapyridine, in capsules and tablets. All other biologicals and pharmaceuticals, including Poison Ivy Extract, Solution Liver Extract and other specialties, will be exhibited. Competent representatives will be in charge.

Lea & Febiger
Philadelphia, Pennsylvania

Space No. F-13

Lea & Febiger will display among their new works Haden's Hematology, Stimson's Fractures and Dislocations, Spaeth's Ophthalmic Surgery, Witherspoon's Clinical Pathological Gynecology, DeGaris, Lachmann and Chase's Human Anatomy, Smith's Heart Patients. New editions will be shown of Fishberg's Hypertension and Nephritis, Prinz and Greenbaum's Diseases of the Mouth and Their Treatment, Brown's Oral Surgery, Musser's Internal Medicine, Stone's New-Born Infant, Levine's Otology and others.

Libby, McNeill & Libby
Chicago, Illinois

Space No. C-5



Libby, McNeill & Libby, Chicago, extends a cordial invitation to all physicians to visit the Libby Homogenized Baby Foods display. This exhibit graphically illustrates why fruits and vegetables in finely divided form, such as these Homogenized Foods, are well tolerated by infants as young as one or two months of age. We will appreciate your

registering for literature and samples of these Homogenized Baby Foods.

Liebel-Flarsheim
Cincinnati, Ohio

Space No. C-6

Liebel-Flarsheim, Cincinnati, Ohio, will exhibit the well-known L-F Short Wave Generators as well as the famous Bovie Electro-Surgical Units. In addition, other new and useful physiotherapy apparatus will be shown. A cordial invitation is extended to visit the Liebel-Flarsheim booth to inspect this new apparatus and have it demonstrated to you.

Eli Lilly and Company
Indianapolis, Indiana

Space No. B-4

Eli Lilly and Company feature an exhibit stressing the importance of liver extract in the treatment of pernicious anemia; "Merthiolate" (Sodium Ethyl Mercuri Thiosalicylate, Lilly) in the surgical and germicidal fields; "Sodium Amytal" (Sodium Iso-amyl Ethyl Barbiturate, Lilly) in the field of hypnotics; and Iletin (Insulin, Lilly) in the management of diabetes mellitus. This is the first appearance of the Lilly Research Laboratories at the meeting of the Michigan State Medical Society and the exhibit unit has been specially designed for state medical meetings.

J. B. Lippincott Company
Philadelphia, Pennsylvania

Space No. E-1



Among the newer Lippincott publications on display will be the phenomenally successful Thorak's "Modern Surgical Technic" and Kracke's "Diseases of the Blood and Atlas of Hematology," from which illustrations are being displayed at the World's

Fair Medical Exhibit. Other important new works include: Rigler's "Outline of Roentgen Diagnosis," Barborka's "Treatment by Diet" and Imperatori's "Diseases of the Nose and Throat."

M & R Dietetic Laboratories Inc.
Columbus, Ohio **Space No. F-14**
M & R Dietetic Laboratories, Inc., will display Similac and powdered SofKurd. Representatives will be glad to discuss the merits and suggested application of these products.

Mead Johnson & Company **Spaces No. C-1-2**
Evansville, Indiana
Three new Mead products are on display at Mead Johnson & Company's booths: Mead's Thiamin Chloride Tablets; Mead's Cevitamic (Ascorbic) Acid Tablets; Mead's Nicotinic Acid Tablets.

Medical Arts Surgical Supply Co.
Grand Rapids, Michigan **Spaces No. C-7-8-9**
The Medical Arts Surgical Supply Company will show the office of tomorrow featuring the latest in Hamilton furniture and some of Grand Rapids-made desks and chairs. They also will feature the Liebel-Flarsheim Short Wave and Davis Bovie cutting units, along with a full line of stainless steel instruments, suction machines, metabolism outfits, and various other equipment for the modern office.

Medical Case History Bureau **Space No. E-19**
New York, New York
The Medical Case History Bureau will feature a patient's history record system which is endorsed and used by many of the foremost physicians. The history charts are printed in all sizes and outlines especially suited for the various branches of medicine and also general practice. One of the many advantages of the system is the limitless space for the history and the simple method of cross-indexing the diagnosis of interesting cases. The bookkeeping cards are efficient and simple to use.

The Medical Protective Company
Wheaton, Illinois **Space No. C-21**
The most exacting requirements of adequate liability protection are those of the professional liability field. The Medical Protective Company, specialists in providing protection for professional men, invites you to confer, at their exhibit, with the representative there. He is thoroughly trained in Professional Liability underwriting.

Medical Supply Corp. of Detroit **Space No. E-3**
Detroit, Michigan



An opportunity to examine "tomorrow's medical equipment today" will be afforded Michigan physicians at the Medical Supply Corporation booth. Featured will be the Lepel Short Wave Machines, Lepel Sinusoidal Machines, Lepel Ultra Violet Lamps, Sklar Rotary Suction Pumps, and a Pandora Bag Display. In attendance to serve the doctor will be Mr. F. A. Janusch, P. T. Sawyer, and H. A. Berg. Be sure to visit Booth E-3.

The Mennen Company **Space No. D-21**
Newark, New Jersey
The Mennen Company will exhibit their two baby products—Antiseptic Oil and Antiseptic Borated Powder. The Antiseptic Oil is now being used routinely by more than 90% of the hospitals that are important in maternity work. Be sure to register at the Mennen exhibit and

receive your kit containing demonstration sizes of their shaving and after-shave products; also, for the lucky number prize drawing to be held at the close of the Convention for DeLuxe Fitted Leather Toilet Kits.

Merck & Co., Inc. **Space No. C-20**
Rahway, New Jersey
Sulfapyridine Merck (introduced as "Dagenan," "M. & B. 693") will be on exhibit in the Merck booth. A chart giving the gross mortality in 2,662 cases of pneumococcic pneumonia, and also the mortality rate with the individual types of the pneumococcus, will be displayed. Literature will be available giving detailed information on the administration of Sulfapyridine Merck and the cautions to be exercised in its use.

The Wm. S. Merrell Co. **Space No. D-11**
Cincinnati, Ohio



Among therapeutic agents to be displayed at the Merrell booth will be Catarrhal Oravax, an effective catarrhal vaccine prepared in enteric coated tablets for oral administration. Representatives will have clinical reports to show interested physicians.

Michigan Magnetic Mineral Water Company **Space No. F-6**
St. Louis, Michigan



Natural Ray Mineral Water from the Magnetic Spring at St. Louis, Michigan, discovered in 1869. Bottled and sealed at the spring. A palatable mineral water that compares favorably with the water of leading European mineral springs. Served free at the exhibitor's booth.

Michigan Society for Group Hospitalization **Space No. F-9**
Representatives of the Michigan Society for Group Hospitalization will be available at this booth to explain all features of the Michigan plan for hospital care.

The C. V. Mosby Company **Space No. F-21**
St. Louis, Missouri
The C. V. Mosby Company will display the following books just off the press: "Varicose Veins" by Ochsner and Mahorner; "Operative Orthopedics" by Willis C. Campbell; "Positioning in Radiography" by K. C. Clark; "Atlas of Radiographs" by A. P. Bertwistle; "Clinical Gastroenterology" by H. W. Soper; "Diseases of the Skin" by Sutton and Sutton; "The Practice of Allergy" by W. T. Vaughan; and "Life and Letters of Dr. William Beaumont" by Jesse Myer. Nearly two hundred other titles will also be shown.

The Muller Laboratories
Baltimore, Maryland

Space No. C-19

Mull-Soy will be shown. This is a soy bean milk-substitute in concentrated fluid form, valuable in the diets of those patients who are allergic to cow's milk. It is palatable, nutritious, simple to prepare, and

Council Accepted.

Parke, Davis & Company
Detroit, Michigan

Spaces No. C-13-14-15

Members of the staff of Parke, Davis & Company will be at your service to tell you about some of their Research Staff's numerous scientific accomplishments. Mapharsen, Adrenalin, Pitocin, Pitresin, Theelin, Theelol, and biological

products will be a part of this attractive exhibit.

Pelton & Crane Company
Detroit, Michigan

Space No. B-12

See the new high-intensity, no-heat surgical light just announced by Pelton & Crane. Also a full line of Pelton Sterilizers, including the new "pocketsize" 6" by 12" automatic autoclave. Mr. C. K. Vaughan will be in charge to answer any questions.

Pet Milk Sales Corp.
St. Louis, Missouri

Space No. E-10

An actual working model of a milk condensing plant in miniature will be exhibited by the Pet Milk Company. This exhibit offers an opportunity to obtain information about the production of Irradiated Pet Milk and its uses in infant feeding and general dietary practice. Miniature Pet Milk cans will be given to each physician who visits

the Pet Milk Booth.

Petrolagar Laboratories
Chicago, Illinois

Space No. E-9

Petrolagar Laboratories, Inc., offer, in addition to samples of the Five Types of Petrolagar, an interesting selection of descriptive literature and anatomical charts. Ask the Petrolagar representative, Mr. R. J. Corkey or Mr. L. F. Harrison, to show you the new HABIT TIME booklet. It's a welcome aid for teaching bowel regularity to your patients.

Philip Morris & Co. Ltd., Inc.
New York, New York

Space No. F-10

Philip Morris & Company will demonstrate the method by which it was found that Philip Morris Cigarettes, in which diethylene glycol is used as the hygroscopic agent, are less irritating than other cigarettes. Their representative will be happy to discuss researches on this subject, and problems on the physiological effects of smoking.

Physicians Equipment Exchange
Detroit, Michigan

Space No. F-16

This year again the Physicians Equipment Exchange will meet its many medical friends with an entirely new display. Featured will be our smart A. W. Cotton Company Walnut furniture at a price that will invite comparison. The furniture is practical, economical, attractive and satisfactory in every respect. Also there will be numerous other pieces of equipment which will be of interest. We invite you to stop for a moment. The time spent will be well worth while.

Professional Management
Battle Creek, Michigan

Space No. A-3



Henry C. Black and Allison E. Skaggs cordially invite the doctors of Michigan to stop at their booth. Financial Records, Case Records, Budgets, Collection Management, and Business Counsel are all parts of Professional Management's regular service. Reprints from the

Michigan State Medical Journal will emphasize the Planning of an Estate.

Ralston Purina Company, Inc.
St. Louis, Missouri

Space No. C-17



Low Calorie Diets, and Wheat, Egg and Milk-free Diet Lists are displayed in the Ralston Purina Co. booth. Physicians are invited to register for Allergy and Low Calorie Diets, and samples of Ry-Krisp, the whole rye wafer. Ralston Whole Wheat Cereal and literature of especial interest to pediatricians and general practitioners also available.

Randolph Surgical Supply Co.
Detroit, Michigan

Space No. A-10

Randolph Surgical Supply Company will again display the ultimate in modern Doctors' office equipment.

A feature of our exhibit will be the most modern type of examining room tables and treatment stands.

Also on display will be the latest diagnostic instruments including many new innovations.

E. J. Rose Manufacturing Co., Inc.
Detroit, Michigan

Space No. B-9

E. J. Rose Mfg. Co. displays a complete line of physiotherapy equipment; featuring the new Full Spectrum Cold Quartz Ultra Violet Generator and Variable Short Wave in choice of four wave lengths in one unit. They also show a new development in Short Wave therapy, utilizing the principle of a Directional Radio Beam.

S. M. A. Corporation
Chicago, Illinois

Space No. E-8



Among the technical exhibits at the convention this year is an interesting new display, which represents the selection of infant feeding and vitamin products of the S. M. A. Corporation. Physicians who visit this exhibit may obtain complete information, as well

as samples, of S. M. A. Powder and the special milk preparation—Protein S. M. S. (Acidulated), Alerdex and Hypo-Allergic Milk.

W. B. Saunders Company
Philadelphia, Pennsylvania

Space No. A-2

These publishers will exhibit a complete line of their books. Of particular interest to the profession are many new books and new editions, including the new (2nd) edition of Christopher's "Surgery," Wiener and Alvis "Surgery of the Eye," McNally's "Medical Jurisprudence and Toxicology," new (4th) edition of Wechsler's "Clinical Neurology," new (2nd) edition of Noyes' "Psychiatry," new (9th) edition of Todd and Sanford's "Laboratory Diagnosis," Hauser's "Diseases of the Foot," new (2nd) edition of Callander's "Surgical Anatomy," the new (11th) edition of Scudder's "Fractures," Cutler's new book on "Cancer," and Morrison's new work on "Nose, Throat and Ear."

Schering Corporation
Bloomfield, New Jersey

Space No. D-5



Representatives of the Schering Corporation, leaders in the development and production of scientific and pure sex hormone preparations, will be pleased to receive members of the medical profession. Latest information will be available on the clinical use of the estrogen preparations, PROGYNON-B and PROGYNON-DH; the corpus luteum hormone preparation, PROLUTON; and the male sex hormone preparation, ORETON.

Scientific Sugars Co.
Columbus, Indiana

Space No. F-17

Cartose and Kinney's Yeast Extract (Vitamin B Complex), and other preparations interesting to the physician will be shown at Scientific Sugars Company booth. Physicians are cordially invited to inspect this display.

Sharp & Dohme
Philadelphia, Pennsylvania

Space No. A-8



Sharp & Dohme have a new modern display this year, featuring their well-known Propadrine Hydrochloride Products. There will also be on display a group of pharmaceutical specialties and biologicals prepared by this house. Capable, well informed representatives will be on hand to welcome physicians and furnish information on Sharp & Dohme products.

Smith, Kline & French Laboratories
Philadelphia, Pennsylvania

Space No. B-7



Smith, Kline & French Laboratories invite physicians to stop and obtain complimentary samples of "Benzedrine Inhaler." The representative will be glad to answer questions about "Benzedrine Sulfate Tablets," "Benzedrine Solution" and Pentnucleotide. Physicians may help themselves from convenient literature dispensers without the bother of leaving their names. They will not be solicited to register.

C. M. Sorensen Co., Inc.
Long Island City, New York

Space No. A-1

Your visit to the C. M. Sorensen Co. booth is respectfully invited, to inspect several new models of office treatment suction and pressure outfits for ear, nose and throat work. A wide range of combinations and prices to suit every need and purpose has been made available.

E. R. Squibb & Sons
New York, New York

Space No. D-4



Physicians attending the Michigan State Medical Society Meeting are cordially invited to visit the Squibb Exhibit. The complete line of Squibb Vitamin, Glandular, Arsenical and Biological Products and Specialties, as well as a number of interesting new items, will be featured.

Well informed Squibb Representatives will be on hand to welcome you and to furnish any information desired on the products displayed.

Frederick Stearns & Company
Detroit, Michigan

Spaces No. C-10-11

It will be a real pleasure to welcome all our old friends at the Frederick Stearns and Company exhibit.

Our professional representative will gladly supply all possible information on Neo-Synephrin in all its various dosage forms. Mucilose, Appella Apple Powder, Stearns Solution Zinc-Insulin Crystals, and other newly developed products.

You are cordially invited.

James Vernor Company
Detroit, Michigan

Space No. C-4



In keeping with the slogan "A Preferred Beverage for Home and Hospital" Vernor's will display their products and be prepared to

serve Ginger Ale—HOT or COLD.

The exhibit will be educational and literature of interest to the Medical Profession will be available.

Wall Chemicals Corporation
Detroit, Michigan

Space No. B-5

Wall Chemical Corporation, a division of the Liquid Carbonic Corporation, will have on display a quantity of compressed gas anesthetics and resuscitants. There will also be a complete line of oxygen therapy equipment including the "Walco" oxygen humidifier, for the nasal administration of oxygen, and the "Walco" oxygen face mask.

U. S. Standard Products Company
Woodworth, Wisconsin

Space No. D-13

U. S. Standard Products Company will exhibit their products at the Michigan State Medical Meeting in September.

Physicians are invited to visit our booth, meet our Michigan representatives and get acquainted with our line of biologicals, ampules, glandular preparations and specialties. There will be displayed new products which will be of interest to physicians.

Westinghouse X-Ray Company, Inc.
Long Island City, New York Space No. C-16

The Westinghouse X-Ray Company, Inc., is exhibiting a small X-Ray unit suitable for use in a doctor's office or small hospital. It provides facilities for both radiography and fluoroscopy, while being compact and popularly priced. Latest design physical therapy equipment and operating-room lights are included.

Winthrop Chemical Co. Space No. D-10
New York, New York

Winthrop Chemical Company, Inc. extends a cordial invitation to every member of the Michigan State Medical Society to visit their booth where representatives will gladly discuss the latest preparations made available by this firm. You will receive valuable booklets dealing with anesthetics, analgesics, antirachitics, antispasmodics, antisyphilitics, diagnostics, diuretics, hypnotics, sedatives and vasodilators.

John Wyeth & Brother, Inc.
Philadelphia, Pennsylvania Spaces No. C-22-23

Among the John Wyeth & Brother specialties will be: Amphojel, the modern treatment for hyperacidities and peptic ulcer; Kaomagma, the absorbent medication for diarrhea and intestinal disorders; Silver Picrate, in powder and suppository form for trichomonas vaginitis; Mucara for intestinal stasis; and Bewon Elixir, indicated for appetite stimulation.

The Zemmer Company Space No. F-2
Pittsburgh, Pennsylvania



The Zemmer Company will display a number of their leading pharmaceutical products, also distribute samples to members of the medical profession.

A cordial invitation is extended to members of the medical profession to visit Exhibit No. F-2.

Zimmer Manufacturing Co. Space No. B-1
Warsaw, Indiana



The Zimmer Manufacturing Company are exhibiting a full line of Fracture Equipment. We especially wish to call your attention to the improved bone instruments which will be on display. The new bone saw is very unique, inexpensive and outstanding in its simplicity. Demonstrations of this instrument will gladly be given

at any time by representatives in charge of the booth.

ANNUAL REPORT OF THE COUNCIL, M.S.M.S., 1938-39

The last paragraph of our 1938 report to the House of Delegates stated in part: "There is still much to be done, especially with the problem of distribution of medical care in particular to the relief group, a decision on group hospitalization . . . and how to supply medical care to those in the borderline group who need it."

In the brief space of twelve months we have experienced the passage of three pieces of legislation covering these important subjects which now permit progressive plans to be put into effect. In other matters of almost equal importance, our progress during the past 365 days has been astonishingly rapid.

Since the 1938 session of the House of Delegates, the Council has convened three times (up to Sept. 18, 1939) and the Executive Committee 14 times—a total of 17 meetings. All business of the Society including the matters studied by the 23 committees of the MSMS was routinely referred to The Council or its Executive Committee for consideration and approval. Each such session represented a period of 10 to 12 hours continuous work.

Membership

Members in good standing as of July 31st and as of December 31st of the years 1935 to 1939 inclusive are best indicated by the following chart:

	1939	1938	1937	1936	1935
As of July 31.....	4,255	3,958	3,757	3,457	3,410
As of Dec. 31.....		4,205	3,963	3,725	3,653

The very definite increase in membership of 845 (to July 31, 1939) since 1935, attests to the fact that the members feel they are deriving benefits from their investment.

Finances

The Auditor's report for the fiscal year 1938 was published in the M.S.M.S. JOURNAL of March, 1939. This gave full details of the transactions of last year. Detailed reports on the financial condition of the Society have been studied by The Council and by the Executive Committee of the Council at each meeting (comparisons of the budget allowances with actual expenditures were also made).

The Special Committee on Securities has made frequent studies of the position of our bonds, and has recommended several changes to the Executive Committee and The Council with a view to disposing of the less favorable holdings and replacing them by securities of the highest class. Several such changes have been made, thus insuring the solidity of the Society's investments. The Executive Committee has also studied the changes in ratings at each meeting.

It is difficult at this time to determine how the current year will come out from the financial standpoint. Your Council believes that it will be several thousand dollars in the black at the end of this year, as the expenditures by some of our Committees may amount to somewhat less than the budgetary allowance.

The Journal

THE JOURNAL reaches each member of the State Society regularly each month. This gives each one an opportunity to judge for himself in regard to the quality of articles published, as well as the format and arrangement of the material in THE JOURNAL.

The Council of the M.S.M.S., at the time of reorganization in 1902, decided upon the publication of a monthly JOURNAL, and to defray the cost, set aside \$1.50 of each member's dues. This sum, to-

gether with the advertising revenue, was presumed to meet the costs of publication each month. While THE JOURNAL has enlarged in size and improved in quality, the allotment of \$1.50 from the dues still stands. An effort is being made on the part of your committee to increase the amount of advertising by having a representative from the coöperative bureau of the American Medical Association spend more time locally in Michigan. It is hoped that this will increase the revenue for THE JOURNAL.

The general unrest and self-assertiveness of labor has had its effect in increasing publication costs of THE JOURNAL.

The importance of this particular venture of The Council, namely, THE JOURNAL, cannot be overemphasized at this time. THE JOURNAL is something visible and tangible which each member of the Society receives. It keeps him informed in regard to the social and economic phases of medicine and provides him a monthly postgraduate course. A great deal of time and effort goes into the annual meeting of the Society, which has become so large that the meetings must alternate between two of the metropolitan centers of the state as they have outgrown the accommodations elsewhere. Excellent programs are presented at these meetings. A paper read before a group of doctors is transitory matter and it is impossible to remember statistical details and charts flashed for an instant on a screen, with sufficient accuracy to be of value afterward. THE JOURNAL presents these papers in permanent form. Hence, as an institution, your JOURNAL rivals the annual meeting.

Not only this, your committee, as well as The Council, has realized the importance of encouraging study and clinical research among practising physicians and surgeons and has enlarged the scope of THE JOURNAL so as to include the best of papers presented at county societies as well as those read before specialist groups. The demand for space in THE JOURNAL by contributors not only keeps up but is on the increase.

We, therefore, call your attention to the importance the JOURNAL has attained as one of the activities of your Society.

Organization

Your councilors and officers have attempted to comply with the instructions of the 1936 House of Delegates that all county medical societies, including those in the Upper Peninsula, be visited yearly. The past year has seen a great deal of travel by your State Society officers. Good organization in the eighty-three counties has been maintained, and an apparent appreciation by county medical societies of the State Society's efforts to assist them with their problems has been obvious. Moreover, the individual members of the Society gain a personal acquaintanceship with the M.S.M.S. officers by meeting them face to face at "State Society Nights," and kindred meetings.

Three Secretaries' Conferences were held, following the instruction of the House of Delegates, one in Lansing on January 15, one in connection with the Annual Meeting in Detroit on September 20, and the special Upper Peninsula Secretaries' Conference in Marquette on March 26. All conferences were extraordinarily well attended.

During the past year, 5,000 copies of the excellent booklet "On the Witness Stand" were printed by the M.S.M.S. and distributed to the membership and the laity, to acquaint all with facts on socialized medicine and the Wagner Bill.

County Societies

Greater activity in scientific and civic matters by our county medical societies was the experience of

the past year. The scientific programs of most county societies were well worth while, with the M.S. M.S. Speakers Bureau assisting in securing talks to an increasing degree. Activity in legislative matters was outstanding in our component units in 1939. We again recommend that all county societies give important time on their programs to practical discussions on medical service—especially during the year 1939-40. Secretary's Letters were sent monthly to county society presidents, secretaries, and four times during the year to all members of the M.S.M.S.

On December 18, we welcomed the Van Buren County Medical Society as the fifty fourth component part of the M.S.M.S.

The Council reiterates its important recommendation that county medical societies retain efficient secretaries and delegates, as these two offices make the Society go.

Committees

The immense volume of work done by the State Society, during 1938-39, can best be appreciated by studying the annual reports of the M.S.M.S. Committees. All committee actions were reviewed by the Council or the Executive Committee.

The Council is grateful and thanks all committee chairmen and members for their hard work performed in behalf of the 4,200 members of the Michigan State Medical Society.

Particularly arduous was the work of the Legislative Committee and of the Committee on Distribution of Medical Care, in connection with voluntary group medical care plans; this subject also required many extra hours of intense study by the Executive Committee of The Council.

In connection with the work of the Advisory Committee on Postgraduate Education, the Executive Committee ruled during the past year that applicants for certificates be members in good standing of their county and state medical societies.

The report of the Committee on Scientific Work does not appear in writing, but is best evidenced by the excellent program which it arranged for the seven General Assemblies, the six Sections, and by the Scientific and technical exhibits at the 1939 Convention. The M.S.M.S. annual meeting has become a "medical world's fair," unique among state medical societies.

Medico-Legal Committee: Three meetings of the Medico-Legal Committee were held since January. Some changes in procedure were inaugurated, including the development of a more comprehensive "Application for Defense" form, instructions to physicians when they report threats, and the transfer of the detail work of the Committee to the M.S.M.S. executive office.

Fourteen cases have been reported since the first of the year, but all except two were covered by private insurance companies, and one of these was not an M.S.M.S. member at the time the alleged action arose.

Since 1935, there has been activity on the part of the Michigan State Medical Society to discontinue or limit the maintenance against legal defense of malpractice suits. At that time a committee including two of the present members of this special committee was appointed and an endeavor was made to curtail this unnecessary expense. The U. S. Treasury Department, during the past winter, ruled that disbursing funds for such purposes made Michigan State Medical Society subject to payment of income tax on all moneys received.

Your committee has over these five years made a rather complete study of the situation through sur-

veys in the State and consultation with other states. It was determined that about 94 per cent of our members carry commercial malpractice insurance. Part of the other 6 per cent are either retired or partially retired physicians or men whose work is exclusively institutional. This would seem to indicate that the great majority of our active members are protected without carrying on the Medico-Legal Defense Fund. It was discovered, however, that in some states where the medico-legal defense fund was discontinued the commercial rates had been raised, but in most of these cases there had been a complete cessation of organized protection against malpractice.

Since the income tax assessment against the Michigan State Medical Society amounts to considerable money, it was felt by The Council that the protection achieved was not comparable with the tax involved. A sub-committee of The Council was appointed consisting of Dr. Irving Greene, Dr. Roy H. Holmes and Dr. F. T. Andrews to work out a plan for submission to the House of Delegates which would eliminate the taxation involved. Later, Dr. Vernor M. Moore succeeded Dr. Greene on the committee.

In order to maintain Medico-Legal Defense and still avoid taxation, it would be necessary to set up an entirely separate corporation to carry on this very limited service. The financial cost of such a corporation would be considerable, and the collecting of funds would be difficult since participation would of necessity be voluntary.

The amendment which will be submitted to the House of Delegates will provide for the continuance of an Advisory Committee working in coöperation with each county's medico-legal counselor and the Councilor of the district involved. This would provide means for obtaining legal advice and medical and scientific witnesses for the defending physician.

Because of the Society's proposed plan to discontinue legal defense of its members and limit the work of the Medico-Legal Committees to an advisory function, the U. S. Treasury Department, on June 7, 1939, reversed its ruling. The Michigan State Medical Society is now classified as a business league, not liable for income taxes. This new classification is contingent on the action of the House of Delegates.

Contacts With Governmental Agencies

Important contacts with agencies of government continue to be a major function of the M.S.M.S. Some of the agencies with which the State Society dealt were the Farm Security Administration, the Works Progress Administration, the Governor's Office, the Michigan Attorney General, Auditor General, Crippled Children Commission, Michigan Welfare Department, Department of Public Instruction, Department of Drugs and Drugstores, Michigan Old Age Pension Bureau, Michigan State Accident Fund, State Board of Registration in Medicine, the State Department of Health. In particular, constant contact was made with the Michigan State Insurance Department in connection with the development of the enabling act for voluntary group medical care and the subsequent incorporation of "Michigan Medical Service," on July 14, 1939.

A brochure on "Treatment of Burns" was developed by the State Society (by a committee headed by Grover C. Penberthy, M.D., of Detroit) at the request of the Crippled Children Commission.

Important contacts were made with United States Senators and Representatives concerning the Wagner Health Bill. The members of the Michigan Legislature were especially cordial to the representatives of the Society in discussing medical matters.

The wisdom of maintaining an executive office in Lansing has been exemplified during the past three years by the increasing number of contacts and friendly relations with important agencies of and individuals in government; the private practitioner's problems are ironed out at the source, and the prestige of the Society increases.

Contacts With Non-Governmental Groups

Friendships with other groups interested in medical service were strengthened materially during the past year, especially with the Michigan Hospital Association. Six representatives of the M.S.M.S. were placed on the Board of "Michigan Society for Group Hospitalization," the corporation sponsored by the Michigan Hospital Association. The present harmonious coöperation of the Michigan Hospital Association with the M.S.M.S. bodes well for the early solution of many joint problems.

Other groups contacted during the year were the Michigan County Clerks' Association, the Michigan Pathological Society, the Michigan Anesthetists Society, the Michigan Waterworks Operators' Association, the Michigan Branch of American Pharmaceutical Association, Michigan Branch of American Academy of Pediatrics, Michigan State Dental Society, Michigan State Nurses' Association, Michigan State Pharmaceutical Society, Michigan Child Guidance Institute. Other valuable contacts were made with the Health Officers at their annual August Conference; and with representatives of all state medical societies at the National Conference on Medical Services (formerly the Northwest Regional Conference) in Chicago, February, 1939, on which occasion your M.S.M.S. Secretary was elected President of the Conference, which honor to Michigan carries with it the obligation of being Conference host in 1940.

Emergencies

Because of the constant attempt of government to encroach upon the private practice of medicine, the M.S.M.S. maintained vigilance and took aggressive action in certain emergencies which arose during the past year. The Wagner Bill required continuous attention, with contacts with our friends in Congress. The amount of propaganda emanating from Washington in behalf of this and similar bureaucratic measures evidences the need for constantly increasing distribution of knowledge to the public through a public relations committee of our national medical organization. A cleverly stimulated public demand for some type of socialized medicine is having its effect on our Congressmen. The only answer lies in giving the facts to *the people* by aggressive national action integrated down through state and county medical societies, dental societies, pharmaceutical associations, and their woman's auxiliaries.

The eternal problem of the Afflicted Child Law was brought to an acute head in 1939 because of an inadequate appropriation for this important state service. Special meetings with the Crippled Children Commission, the Michigan Hospital Association, and the Michigan Probate Judges Association resulted from the drastic action of the Legislature and the Commission in slashing the rates and fees for hospital and medical service of afflicted children.

The Basic Science Board was again enjoined by chiropractors, this time in the Circuit Court of Detroit, July 10, 1939. Immediate action was taken to protect this good educational law.

Developing a plan of voluntary group medical care presented a tremendous volume of work (not to mention a generous amount of prophetic vision) during the past year. The public, which will profit

from the results of the Michigan State Medical Society's labors, will never fully appreciate the extent of the work involved nor the dangers in sailing a new ship over an uncharted sea.

The Michigan State Medical Society has become a quasi-public organization and must look for an ever-increasing amount of activity in civic endeavor and for the common weal. Its position in the State has become one of influence and leadership. The maintenance of these qualities is the responsibility of every one of its individual members.

Progress

Outstanding progress has been made by the Michigan State Medical Society in the year just closed, principally from its leadership in group medical care plans, the passage of the venereal disease control acts, and the medical provisions of the Welfare Reorganization Law.

On the scientific side, it has been influential in bringing additional post-graduate instruction to physicians in their own offices and hospitals by sponsoring field representatives in cancer, venereal disease, pediatrics and maternal health. As stated before, our progress is best indicated by the unusual increase in membership during the last few years.

For the future, we may expect greater problems, more work, and therefore additional accomplishments. Our whole structure depends upon the allegiance and activity of the individual practitioner of medicine to his county and state medical societies, which exist only for the betterment and welfare of their physician-members and the people whom they serve.

Respectfully submitted,

P. R. URMSTON, M.D., *Chairman*

HENRY R. CARSTENS, M.D.

J. EARL MCINTYRE, M.D.

WILFRID HAUGHEY, M.D.

F. T. ANDREWS, M.D.

VERNOR M. MOORE, M.D.

I. W. GREENE, M.D.

T. E. DEGURSE, M.D.

W. E. BARSTOW, M.D.

E. F. SLADEK, M.D.

ROY H. HOLMES, M.D.

A. H. MILLER, M.D.

WM. H. HURON, M.D.

H. H. CUMMINGS, M.D.

GEO. A. SHERMAN, M.D.

A. S. BRUNK, M.D.

P. A. RILEY, M.D.

PLANNING AN ESTATE

(Continued from page 782)

quate, where ordinarily other investments should be paid for in full.

After the life insurance program, after the home question is settled, after all obligations are retired, and a substantial amount of cash is accumulated then and *not until then* should other investments be considered. Further accumulations in cash may well be invested, the first few thousand in high grade bonds, yielding a conservative rate of interest, comparatively liquid, and subject to slight fluctuations in price. Ordinarily these should not be traded on market fluctuations, but should be bought and held, with safety of principal as the primary consideration.

Some men have been very successful with real estate mortgages, and one who knows values, buys well-secured first mortgages, and takes care of them may realize a slightly higher rate of interest than can generally be expected in conservative bonds. A small estate might reasonably exclude any common stocks, but as it becomes larger reasonable additions of common stocks or income-producing property should result in a well-balanced estate. Then the effects of the fluctuations of real values as compared with money values will be minimized. One factor in owning income property or common stocks for investment is the necessity for continuous capable supervision, whether it be in the accumulation or the administration of the estate. Property held for investment should be income-producing and usually self-supporting.

To summarize briefly, set your financial goal at least in principle, with the most important objectives clearly defined. Make it flexible enough to fit changing requirements, and then stick to it. When a "red hot" proposition comes along, make it fit the plan or discard it.

HARTZ

Silver Nitrate Applicators

Individual Aseptic Sticks

For Topical Applications Hartz offers these Silver Nitrate Applicators. Made of wood, each applicator is tipped with Silver Nitrate. The stick is $6\frac{1}{2}$ inches long, allowing easy application.

Hartz Silver Nitrate Applicators come conveniently packaged in celluloid cases which protect them from light and air. Sanitary, convenient, economical, you will find them a valuable addition to your list of supplies.

A tube of 100 applicators sells for only \$1.00. Ask your Hartz salesman about them the next time he calls or phone CHerry 4600.



Case of 100 Applicators \$1.00



THE J.F.HARTZ CO.

1529 BROADWAY • DETROIT, MICH.

Department of Economics

L. FERNALD FOSTER, M.D., Secretary

THE 1939 ANNUAL SESSION

WHEN you receive your urgent invitation to attend the Annual Meeting, resolve to notify your patients that you will be away from your office September 19, 20, 21 and 22. Tell them you are taking advantage of this unusual postgraduate opportunity. Your patients will appreciate your interest in this meeting which combines many features that will enhance your service to them.

This year's program includes among its outstanding features—

1. A four-day intensive postgraduate conference presenting seventy-four outstanding speakers, thirty-eight of whom are out of Michigan.
2. A presentation and discussion before the House of Delegates of the various social and economic problems facing the profession at this time.
3. A Scientific Exhibit sponsored by various organizations and institutions.
4. The greatest Technical Exhibit ever presented by the State Society. One hundred exhibitors will demonstrate the latest appurtenances of modern practice.
5. Many vacation features including golf, banquets and interesting sight-seeing.
6. A well-rounded program of entertainment for the ladies.

This is your meeting—a \$60,000 presentation—made possible only by your interest and attendance. You are urged to attend all the scientific sessions, which form a complete, intensive postgraduate course, covering every specialty and phase of modern medicine.

It is hoped that you will visit and register at each booth in the Technical Exhibit. Ample time has been set aside to enable you to show your friends, the exhibitors, that you appreciate their coöperation in making the 1939 Session a banner meeting. They have much to show you, and your appreciation of their efforts can best be expressed by your registration at each booth.

**REMEMBER THE DATES—SEPTEMBER
19, 20, 21, 22, 1939
CIVIC AUDITORIUM—GRAND RAPIDS**

THE TECHNICAL EXHIBITION

Exhibit Floor, Civic Auditorium,
Grand Rapids, Michigan

VISITORS to the Michigan State Medical Society Convention are enabled to see and familiarize themselves with the latest products of research, invention and manufacturing skill which contribute to the work and efficient service of physicians and surgeons. An educational exhibit of unusual interest and scope has been arranged through the coöperation of leading manufacturers of surgical instruments, x-ray apparatus, sterilizers, operating room lights, ligatures, dressings, hospital apparatus and supplies of all kinds, pharmaceuticals, and publishers of medical books. The Technical Exhibition is conveniently situated with relation to the headquarters registration desk and M.S. booth. The exhibition is open each day from 8:30 A.M. to 6:00 P.M., providing ample opportunity for its thorough study. The visiting physicians and surgeons will find in the Technical Exhibition an instructive showing of the many great industries allied with the surgeon and the hospital for the better care of the sick and the injured.

BRING YOUR MEMBERSHIP CARD

BE SURE to have your MSMS membership card with you when you visit Grand Rapids for the MSMS convention, in order to facilitate your registration. The registrars do not wish to inconvenience members by having them standing in line. A registration of approximately 2,000 physician-members is anticipated.

THE 1939 GOLF TOURNAMENT

THE Third Annual Golf Tournament of the Michigan State Medical Society will be held at 1:00 P. M., Sunday, September 17, 1939, at the Blythefield Country Club, Grand Rapids. Tickets at \$3.50 will include Green Fees, Dinner and Prizes.



IN DEPRESSIVE STATES, Benzedrine Sulfate Tablets will often produce a sense of increased energy, mental alertness and capacity for work, but should be used only under the strict supervision of a physician. In depressive psychopathic states, the patient should be institutionalized.

The following articles, selected from an extensive bibliography on the subject, discuss the administration of 'Benzedrine Sulfate Tablets' in depressive states:

BIBLIOGRAPHY

GUTTMANN, E.—The Effect of Benzedrine on Depressive States—*J. Ment. Sci.*, 82:618, September, 1936.

MYERSON, A.—Effect of Benzedrine Sulfate on Mood and Fatigue in Normal and in Neurotic Persons—*Arch. Neurol. & Psychiat.*, 36:816, October, 1936.

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BRINTON, D.—Nervous Diseases—Benzedrine Sulfate—*The Practitioner*, 139:385, October, 1937.

REPORT OF THE COUNCIL ON PHARMACY AND CHEMISTRY—The Present Status of Benzedrine Sulfate—*J. A. M. A.*, 109:2064, December 18, 1937.

REPORT OF THE COUNCIL ON PHARMACY AND CHEMISTRY (Announcement of Acceptance)—*J. A. M. A.*, 111:27, July 2, 1938.

BENZEDRINE SULFATE TABLETS

Each 'Benzedrine Sulfate Tablet' contains amphetamine sulfate, 10 mg. (approximately $\frac{1}{8}$ gr.)

SMITH, KLINE & FRENCH LABORATORIES, PHILADELPHIA, PA.

Established 1841

THE MICHIGAN POLIOMYELITIS COMMISSION

THE present threatened epidemic of infantile paralysis, in the state, has given rise to the development of the Michigan Poliomyelitis Commission.

This emergency organization has been formed to furnish consultation service for the early diagnosis and prompt orthopedic care of poliomyelitis.

The Commission represents the mobilization of these forces which can best combat this dreaded disease. It was developed through the sponsorship of the Michigan State Medical Society, the Michigan Branch of the American Academy of Pediatrics, the Michigan Department of Health and other interested groups.

It is a fine testimonial to the medical profession of Michigan and a splendid demonstration of coöperative organization which

so spontaneously and unselfishly arose to meet a crisis.

When this organization will have served its purpose in the present emergency, it will automatically dissolve.

THE LAW AND YOU

IT IS probably safe to say that few doctors have paused to consider the legal aspects of their profession until their diagnosis of treatment in a given case has been assailed by a patient. When a physician finds himself accused of malpractice, he is often startled by the realization that every act which he performs in the practice of medicine is governed by some well-defined principle of law. He learns that the practice of medicine has a distinct legal aspect.

—*Law and the Practice of Medicine*, W. S. Jordan, Jr., from *Scalpel*, publication of Alpha Epsilon Delta for December, 1937.

SUPPLEMENTARY ROSTER

The following physicians, whose names did not appear in The Directory Number of THE JOURNAL, are members of the Michigan State Medical Society:

Berrien County

Belsley, Frank.....Benton Harbor
Brown, Rolland.....Benton Harbor
Landy, George.....Eau Claire
Lapin, Morey.....Los Angeles, Calif.
Littlejohn, William.....Bridgman

Delta-Schoolcraft County

Lanting, Helen.....Escanaba

Eaton County

Arner, Fred L.....Bellevue
Myers, A. W.....Pottersville

Grand Traverse-Leelanau-Benzie County

Clements, F. W.....Interlochen
Flood, Robert E.....Northport
Gratiot-Isabella-Claire County
Pullen, C. D.....Mt. Pleasant

Ingham County

Black, Charles E.....Lansing
Stringer, C. J.....Lansing

Kalamazoo County

Boys, Floyd E.....Charlottesville, Va.

Kent County

Allen, R. V.....Grand Rapids
Boelkins, Richard C.....Grand Rapids
Dick, Mark W.....Grand Rapids
Duiker, Henry.....Grand Rapids
Houghton, G. D.....Caledonia
Rogers, John R.....Grand Rapids
Vann, Norman.....Grand Rapids

Lenawee County

McGarvey, M. J.....Blissfield

O.M.C.O.R.O. Counties

Baumann, Milton C.....Gaylord
Skinner, Edward F.....Gaylord

Van Buren County

Buckborough, M. W.....South Haven

Wayne County

Abrahamson, Max.....Detroit
Alderman, R. F.....Detroit
Barnes, Donald Jerome.....Detroit
Beery, Wm. J.....Detroit
Berke, Sydney S.....Detroit
Bloom, Arthur.....Detroit
Bloomer, Earl.....Dearborn
Braitman, Hyman.....Detroit
Bramigk, W.....Detroit
Burnside, Howard B.....Detroit
Carbone, Louis A.....Detroit
Carson, Herman J.....Detroit
Chall, Henry.....Detroit
Clarke, Emilie Arnold.....Detroit
Clarke, Niles A.....Detroit
Conley, L. C. M.....Detroit
Cowen, Robert L.....Detroit
Cushing, Russell G.....Detroit
Clark, Charles J.....Detroit
Corbeille, Catherine.....Detroit
Daniels, Lewis E.....Detroit
Defever, Cyril R.....Detroit
Dibble, John B.....Detroit
Durham, Robert H.....Detroit
Davis, George H.....Trenton
Eder, Joseph R.....Detroit
Ewing, C. H.....Detroit
Freeman, Benjamin F.....Detroit
Friedlaender, Alex S.....Detroit
Fenner, Wm. A.....Detroit
Gleason, John E.....Detroit
Graff, J. M.....Detroit
Grekin, Joseph.....Detroit
Hall, Arche C.....Detroit
Harris, E.....Detroit
Harrison, Henry.....Detroit
Hodges, Roy W.....Detroit
Honor, Wm. H.....Wyandotte
Hunt, Verne G.....Detroit
Kates, Simon C.....Detroit
Kraft, Raymond B.....Detroit
Kraus, John J.....Detroit
Kovach, Emery P.....Detroit
LaBine, Alfred C.....Detroit
Lammy, James V.....Detroit
Lang, Leonard W.....Detroit
Leach, David.....Detroit
LeGallee, George M.....Detroit

Lichter, M. L.....Melvindale
Lipkin, Ezra.....Detroit
McMahon, Gerald H.....Detroit
McDonnell, Frank J.....Detroit
MacFarlane, Howard W.....Detroit
Major, Roman H.....Detroit
Malone, Herbert.....Detroit
Moritz, H. C.....Detroit
Morse, Ellen.....Detroit
Morse, Plinn F.....Detroit
Muske, Paul H.....Detroit
Naud, Henry J.....Detroit
Oppenheim, Milton M.....Detroit
Paterson, W. G.....Detroit
Pelletier, Charles J.....Hazel Park
Pittman, J. E.....Detroit
Porter, Howard.....Romulus
Prendergast, John J.....Detroit
Reed, Fred R.....Detroit
Robertson, Stanley B.....Detroit
Robertson, Tom H.....Detroit
Robillard, Henry J.....Detroit
Roth, Edward T.....Detroit
St. Amour, Hector J.....Detroit
Saltzstein, Harry C.....Detroit
Sanderson, Alvord R.....Grosse Pte. Pk.
Schiller, Arthur E.....Detroit
Schmidt, Harry B.....Detroit
Schmidt, Harry E.....Detroit
Seabury, Frank P.....Detroit
Shawan, Harold K.....Detroit
Spademan, Loren C.....Detroit
Sparks, J. H.....Detroit
Stern, Edward A.....Detroit
Stocker, Harry.....Detroit
Shellhamer, Claire.....Detroit
Swanson, C. N.....Detroit
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Tamblyn, E. J.....Detroit
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Thomas, Delma F.....Detroit
Trombley, Joseph J.....Detroit
Walker, J. Paul.....Detroit
Wall, Joseph A.....Detroit
Waltz, Frank D. B.....Detroit
Watts, John J.....Detroit
Weber, Karl W.....Detroit
Weinstein, Jacob.....Detroit
Weisberg, A. Allen.....Detroit
Wood, Wilford C.....Detroit

**MICHIGAN'S DEPARTMENT
OF HEALTH**

HENRY A. MOYER, M.D., Commissioner
LANSING, MICHIGAN

POLIOMYELITIS

An unprecedented rise in the incidence of poliomyelitis occurred during the month of July. The total of eighty-four cases reported to the Michigan Department of Health exceeded that for the same month in any previous year. Practically all of the cases thus far have been reported in the eastern part of the state, sixty-six of the July cases being reported in Detroit. In all previous outbreaks the disease did not assume such proportions until August, the peak being reached the latter part of August or the first week in September. The early increment of cases this year may constitute a major hazard.

To meet the threat of a possible state-wide outbreak, the State Medical Society, the State and local health departments and the United States Public Health Service have undertaken a concerted effort to secure early recognition and laboratory diagnosis of all cases, followed by adequate medical attention and orthopedic treatment when necessary. The State Medical Society has established 12 districts and arranged for trained consultants in each of these areas who may be called upon by practicing physicians. This consultant service may be arranged through the secretaries of the local medical societies. Information on the early recognition and treatment of poliomyelitis is also being made available to physicians through their local societies.

The Michigan Department of Health and local health departments are providing epidemiological service and a clinical pathologist is available for the demonstration of clinic procedures in the diagnosis of the disease. The Bureau of Laboratories is equipped to supply laboratory diagnostic service and has informed all registered laboratories throughout the state of measures recommended in the diagnosis and differential diagnosis of poliomyelitis. The time elements suggested in these recommendations are vital. Chemical and cytological examinations on bloody fluid are of no value although such specimens can be used for bacteriologic tests.

1. *Cell counts.* Accurate cell counts are obtained only within one-half hour after withdrawal of the fluid, after which time cell counts cease to be reliable.

2. *Protein determinations.*

a. Quantitative total protein determinations are made according to any of the modifications of the standard methods used in blood chemistry. Poliomyelitis cases routinely will show increased total protein which persists longer than the rise in total number of cells. It is, therefore, of particular value when cell counts may be low or normal.

b. Globulin tests are of less value than total protein. Many cases show only a very slight increase in globulin but have a definite increase in total protein.

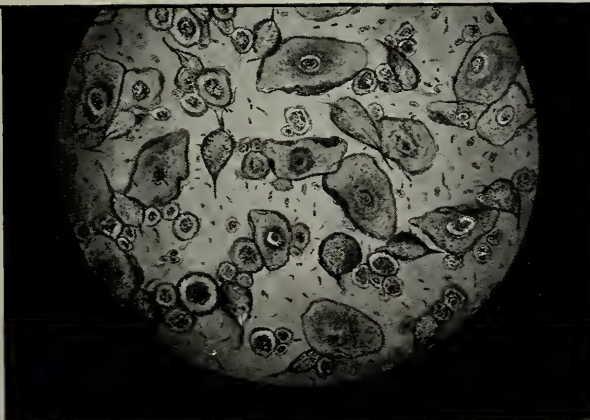
3. *Quantitative sugar.* This test must be done within one or two hours after withdrawal of fluid. It is of value in differential diagnosis between poliomyelitis, tuberculosis and the purulent meningitides (in such cases other bacteriologic tests are indicated). It is of no aid in differentiation of poliomyelitis and encephalitides.

4. *Gold chloride.* This is of little or no value

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either in the diagnosis or differential diagnosis of suspected poliomyelitis.

5. *Bacteriologic routine cultures* and stain preparations should be made on all specimens to rule out other infections.

The examination of spinal fluid is an important aid in the diagnosis of poliomyelitis. It should include cell count, protein determination, quantitative sugar determination and bacteriologic examinations.

The Michigan Department of Health does not recommend any form of prophylaxis, nor will convalescent serum or whole blood be supplied since little justification has been found for their administration in poliomyelitis cases. As far as the public generally is concerned, it will be the policy of the Department to allay any mass hysteria which untimely publicity regarding this disease may arouse. The incidence and mortality of this disease do not warrant any such fear. It is recommended that public schools be opened as scheduled and kept open unless unusual localized conditions may warrant otherwise. Children will be better protected in the school where they are under constant observation and control.

* * *

NEW VIRUS RESEARCH LABORATORY

Michigan may well become the midwest center for research in virus diseases with the establishment in Lansing by the Michigan Department of Health of a special virus research laboratory under the supervision of Dr. Sidney David Kramer.

The new research laboratory will be made possible by a \$12,900 annual grant from the National Foundation for Infantile Paralysis. This grant will make possible extensive research into the cause and prevention of such virus diseases as poliomyelitis. National interest in the establishment of such a laboratory here is shown in the fact that the United

States Public Health Service has made a special grant of \$5,000 for the provision of necessary laboratory facilities where this research work may be carried on.

Dr. Kramer will be in charge of the Department's Division of Virology. He has had many years of experience in the study of virus diseases. He was a member of the Harvard Infantile Paralysis Commission, and in recent years he has been developing the science of virology at Long Island College of Medicine and Jewish Hospital in Brooklyn. Dr. Kramer is a pediatrician, a fellow of the American Academy of Pediatrics and Licentiate, the American Board of Pediatrics. In his new position Dr. Kramer will be available to local medical societies for the demonstration of clinic procedures in the diagnosis of virus diseases.

Coöperating with Dr. Kramer will be Dr. H. E. Cope of Detroit, who has recently joined the staff of the Michigan Department of Health Laboratories to take charge of the Division of Clinical Pathology. Dr. Cope will be investigating and developing laboratory methods to aid physicians in diagnosing diseases caused by filterable viruses. He is well known to Michigan physicians having been pathologist for the Owen Clinical Laboratory in Detroit for many years.

* * *

PNEUMONIA RESEARCH GRANT CONTINUED

A Commonwealth Fund of New York has notified the Michigan Department of Health of the continuation of its annual grant of \$16,600 per year for research in pneumonia. This study has been carried on for the past three years in an effort to improve the therapeutics in pneumonia and lower the cost of producing antipneumococcic sera. This grant was originally made in 1936 on a three-year basis with

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the provision that it be continued for two additional years if satisfactory progress were shown. The Michigan Department of Health Laboratories are now producing for general distribution free to physicians serum for the treatment of Type 1 and Type 2 pneumonia.

The pneumonia research project is being carried out under the immediate supervision of Dr. John T. Tripp, director of the Biologic Products Division of the Bureau of Laboratories.

* * *

PEDIATRICS CONSULTANT

The Bureau of Maternal and Child Health announces the appointment of Dr. Warren E. Wheeler of Dayton, Ohio, to its staff as field consultant in pediatrics. Dr. Wheeler will be available to local medical societies for consultant service in pediatrics. Similar services are now provided by the Bureau in obstetrics and maternal health.

Dr. Wheeler comes to Michigan from the Miami Valley Hospital in Dayton. He has also served at Good Samaritan Hospital and St. Elizabeth's Hospital in the same city. In 1933 he was an assistant in pediatrics in the Harvard Medical School. He received his M.D. degree from Harvard Medical School, specializing in pediatrics and later serving as resident in pediatrics in Children's Hospital in Boston.

This new consultant service in pediatrics has been recommended and approved by the Michigan Branch of the American Academy of Pediatrics and the executive committee of the Council of the Michigan State Medical Society. Dr. Wheeler's services may be secured upon request through the local medical societies.

* * *

MORTALITY DURING FIRST SIX MONTHS OF 1939

Continued decreases in infant and maternal deaths during the first six months in 1939 have been reported by the Bureau of Records and Statistics. Infant deaths during that period totaled 2,041, compared with 2,103 during the same period of 1938. Maternal deaths declined from 164 during the first six months of last year to 157 in the first six months of 1939.

Total deaths from all causes increased slightly. There were 27,771 deaths during the first six months this year, compared with 25,880 in 1938. Births dropped from 48,235 in 1938 to 45,357 this year.

Heart disease, first major cause of death, again showed an increase, 5,838 deaths being reported during the first half of this year, compared with 5,390 last year. Cancer deaths also increased from 2,842 to 3,004. Apoplexy caused 2,289 deaths, a slight increase from last year. Pneumonia deaths increased from 1,700 to 1,902. Nephritis deaths also increased slightly to 1,419. Deaths from typhoid fever, diphtheria, tuberculosis, diarrhea and enteritis, and automobile accidents all showed some decrease.

* * *

COMMUNICABLE DISEASE MORBIDITY

Syphilis case reports led the list of communicable diseases reported to the Michigan Department of Health during the month of July, 1939. There were 1,131 cases of syphilis reported for the month, making a total of 8,412 reported cases for the first seven months of 1939. Comparative figures for the same period in 1938 indicated 950 reported cases during July and 8,517 for the first seven months of that year.

Whooping cough was the second most prevalent disease, 836 cases being reported for July. This was a big decrease from the 1,783 cases reported in the same month a year ago. There have been 6,006

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cases of whooping cough reported thus far this year, compared with 7,292 in the same period last year.

Gonorrhea case reports totaled 543 for the month, compared with 612 for the same month last year. There have been 3,583 cases of gonorrhea reported thus far this year, compared with 4,002 a year ago.

Tuberculosis cases have declined from 561 in July last year to 539 in the same month this year. The total for the year, however, is slightly in excess of the 1938 total at this time, there being 3,610 cases reported in 1939 and 3,540 in 1938.

Reported cases of measles were far below comparative figures for last year, when one of the most extensive outbreaks of this disease was sweeping the state. There have been 361 cases of measles reported for July this year, compared with 1,949 cases a year ago, the total for the year to date in 1939 being 1,052, compared with 77,374 last year.

Scarlet fever cases totaled 341 for the month this year, compared with 448 in 1938. The totals for the first seven months showed a decline from 12,498 last year to 12,076 cases this year. Pneumonia cases showed an increase this year, 155 cases being reported during July, compared with 83 in the same period last year. The yearly totals showed 2,834 for 1939, compared with 1,657 for 1938.

Poliomyelitis cases for July, 1939, indicated the greatest prevalence of this disease at such an early period that has ever been reported. There were 84 cases during the month, compared with 11 during the same month last year. The total for the first seven months stands at 93 cases for 1939 and 21 cases for 1938.

Smallpox cases were also on the increase during July, 27 cases of this disease being reported, compared with eight in the same month last year. There have been 333 cases of smallpox reported in

Michigan since January 1, compared with 184 at this time in 1938.

Diphtheria cases declined slightly from 30 cases in July, 1938, to 21 cases in July, 1939. The total for the first seven months was 293 this year, compared with 299 a year ago.

Typhoid fever cases declined from 132 during the first seven months of 1938 to 57 cases during the first seven months of 1939. There have been 25 reported cases of meningitis thus far this year, compared with 42 at the same time a year ago.

* * *

ASSOCIATE ENGINEERING DIRECTOR APPOINTED

John M. Hepler, former director of the Bureau of Industrial Hygiene of the Michigan Department of Health, has been appointed associate director of the Department's Bureau of Engineering. The appointment is effective as of July 1, 1939.

In his new duties Mr. Hepler will be associated with Col. Edward D. Rich, director. Mr. Hepler has a broad background of administrative experience with the Department in the field of engineering, coming to the Department as assistant engineer in 1919. From 1925 to 1927 he directed the stream pollution control program of the Department previous to the creation of the present Stream Control Commission. From 1927 to 1936 he supervised water filter plants for the Bureau, in addition to directing the Plumbing Division from 1929 to 1933. He has been a member of the State Plumbing Board since 1933. In April, 1936, he became the director of the reestablished Bureau of Industrial Hygiene.

* * *

MILK CONTROL SPECIALIST

W. S. Feagan of St. Louis has been appointed to the staff of the Bureau of Engineering as director of milk control. Mr. Feagan will work with the

MICHIGAN'S DEPARTMENT OF HEALTH

local sanitarians in coördinating and improving the state's milk control program in coöperation with the Department of Agriculture.

Since 1937 Mr. Feagan has been associated with the St. Louis Health Department as dairy plant engineer. He is at present making a survey of milk sanitation in Michigan, visiting local health officers and sanitarians. He is being accompanied by W. H. Haskell, milk control specialist from the United States Public Health Service.

* * *

LUCE-MACKINAC HEALTH OFFICER

Dr. August C. Orr of Bismarck, North Dakota, has been appointed health officer of District No. 6 Health Department, including Mackinac and Luce counties. Dr. Orr, who assumed his new duties August 16, will have his headquarters at Newberry with a branch office at St. Ignace.

Dr. Orr comes to Michigan from a position as director of the Division of Child Hygiene in the North Dakota Department of Health. In addition to his experience as a rural teacher and school superintendent, Dr. Orr has also engaged in private practice in medicine in North Dakota from 1934 to 1936. He received his medical training at the University of North Dakota and at Rush Medical College, interning at Lutheran Deaconess Hospital in Chicago. His public health training was gained in the Harvard School of Public Health.

* * *

VENEREAL DISEASE CONTROL

"The sum of \$4,379,250 will be allotted to the States for venereal disease control programs during the coming twelve months," Doctor Thomas Parran, Surgeon General, United States Public Health Service, announced recently.

This expenditure is made possible by the La-Follette-Bulwinkle Act of 1938, which authorized an appropriation of \$5,000,000 for the fiscal year 1940. Allotments to the States constitute 86.9 per cent of the total amount available for venereal disease control work. The remaining 13.1 per cent, amounting to \$620,750, will be used for research, laboratory and field demonstrations, and administration.

The Federal allotment, which will be supplemented by State and local appropriations and by special grants from foundations and other private organizations, will represent a larger sum of money than has been available for venereal disease control programs in any previous year. Doctor Parran pointed out, however, that "funds now available do not yet approximate the estimates considered by medical and public health authorities to be necessary for the most effective public health campaign against syphilis and gonorrhea." It is expected that additional allotments from public and private sources will be sought for 1941.

The Federal Government's share for venereal disease control work in the States and localities during the next twelve months' period has been allotted on the basis of (1) population, (2) extent of the venereal disease problem, and (3) the financial needs of the various sections of the country.

In order to receive these grants, the Surgeon General announced that the States must meet certain general minimum requirements in the prevention, treatment and control of the venereal diseases. These requirements are based on recommendations adopted by the Conference of State and Territorial Health Officers on April 13, 1936. Federal funds for venereal disease control programs must be matched by State or local funds and must not replace funds from such sources already being used.

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IN MEMORIAM

Clyde I. Allen, M.D.

Dr. Clyde I. Allen of Detroit, died on August 1, 1939. Dr. Allen was born in Allerton, Illinois, in 1893. In 1917, he was graduated from Illinois Wesleyan College, and in 1921 received his M.D. from Johns Hopkins University. Since that time, Dr. Allen has been a member of the staff of Henry Ford Hospital, Detroit. In 1935, Dr. Allen with Drs. R. D. McClure and F. W. Hartman, discovered an antiseptic many times stronger than carbolic acid and yet harmless to human tissues. Dr. Allen was a diplomate of the American Board of Surgery, a fellow of the American College of Surgeons, a member of the American Thoracic Association, American Medical Association, Michigan State Medical Society, Wayne County Medical Society and the Detroit Academy of Surgery. He is survived by his wife, Dorothy, and sons, Lawrence and Hubert.

Bernhard Friedlaender, M.D.

Dr. Bernhard Friedlaender, Detroit surgeon, died on August 14, 1939, at the Mayo Clinic in Rochester, after a short illness. He was born in 1870 in Tuckum, Courland, in Latvia. In 1892 he received a Ph.D. degree from the University of Koenigsberg, and in 1898, M.D. from the University of Maryland. From 1900 to 1915, he was Health Officer for Huron County. He was senior surgeon at the Highland Park General Hospital from 1920 to 1927, after which time he was a member of the staff, also a

member of the staff of Florence Crittendon Hospital, Detroit. He served during the War as specialist in Plastic Surgery of the head, Base Hospital, 82nd Division, and was discharged in 1919 with the rank of major. Dr. Friedlaender was a member of the Wayne County, Michigan State and American Medical Associations, as well as the Radiological Society of North America, U. S. Military Surgeons, Association for the Study of Internal Secretions, past president of the Highland Park Physicians' Club, also past president of the National Sojourners and Heroes of '76. He was a Mason, a member of the American Legion and a charter member of the Army and Navy Society. Dr. Friedlaender leaves his wife, Rosa, and two daughters, Hannah, wife of Dr. Lafan Jones of Flint, and Minna, wife of Dr. Emil D. Rothman of Detroit.

George W. King, M.D.

Dr. George Willard King of Charlevoix died on August 22, 1938. He was born in Independence, Iowa, in 1866, and was graduated from the Marquette University in 1906. In 1908, he moved to Charlevoix and practiced there for thirty years, until his death. He was married to Miss Ella B. Neuenschwander of Garden City, Missouri, in 1920. Dr. King was a member of the Northern Michigan Medical Society and the Michigan State Medical Society. Surviving are his wife; two daughters, Georgia and Lillian; a son, Donald; a sister, Mrs. Emma Scheldon of Minneapolis, Minn.; and two brothers, Arthur of Bangor and Walter of Hershey.

C. S. Lane, M.D.

Dr. Charles S. Lane of Hudson, Michigan, died on April 16, 1939, at the University Hospital in Ann Arbor. Born November 27, 1866, in Salem, Michi-

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gan, he attended the University of Michigan and was graduated from the Rush Medical School in Chicago. He began his practice at Whitmore Lake before coming to Hudson, where he was located during the past twenty-five years. September 8, 1924, he married Myrtle Eckhart, who preceded him in death in 1938. Dr. Lane was a member of the Lenawee County Medical Society and the Michigan State Medical Society.

J. W. Leininger, M.D.

Dr. John W. Leininger of Gladwin, died suddenly following a heart attack on July 9, 1939. Dr. Leininger was born in Watertown, New York, in 1857, and was educated in Canada, graduating from Toronto University. He practiced medicine in Gladwin County for forty-eight years. He was a member of the Masons, also the county medical society and the Michigan State Medical Society. He is survived by his widow.

David McClurg, M.D.

Dr. David McClurg died on May 25, 1939, at the age of seventy-five years, concluding twenty-eight years of practice in Highland Park, Michigan. Dr. McClurg was born in Ailsa Craig, Ontario, in 1864, graduated from the University of Michigan in 1892, and began general practice in Croswell. In 1897 he located at Portland, Michigan, until 1911 when he came to Highland Park. He had been on the staff of the Highland Park General Hospital since its organization in 1921. Dr. McClurg was a member of the Highland Park Physicians Club, the Wayne County, Michigan State and American Medical Associations, as well as a member of the Seniors, a group of Wayne County doctors who have been in practice over twenty-five years. He leaves his wife, Anne L. McClurg.

Andrew A. McKay, M.D.

Dr. Andrew A. McKay, prominent Midland physician, died on June 3, 1939. He was born in Midland in 1873, attended the University of Michigan, and was graduated from the Detroit College of Medicine in 1894. After his graduation, he entered general practice at Coleman, and in 1907, moved to Manistee where he practiced until his retirement in 1936, when he moved back to Midland. Dr. McKay was formerly chief of staff of the Mercy Hospital at Manistee, also a past president of the Western Michigan Medical Society. He was captain of the Medical Officers Training Corps during the World War, and was in command of training at Ft. Riley, Kansas. Dr. McKay was a member of the Manistee County and Michigan State Medical Societies. Surviving are his mother, sister, and a brother, Dr. Kenneth M. McKay.

Charles S. Strain, M.D.

Dr. Charles Spurgeon Strain of Rochester, Michigan, died after a brief illness. He was born in Patterson, Ohio, May 19, 1870. He attended the Columbus Grove High School College in 1902. He had been practicing medicine in Rochester from 1902 to a short time before his death. Dr. Strain served eight months overseas during the World War as Captain and Chief Surgeon of the 18th and 19th Bolloon Company. Dr. Strain held a life membership in the Masonic Lodge of Rochester, and was also active in civic affairs, serving since 1932 on the Village Council. He was a member of the Oakland County and the Michigan State Medical Societies. Surviving are his wife, and one daughter, Mrs. William Hayes, and two sisters, Mrs. N. S. Scot and Mrs. S. S. Richards.

General News and Announcements

"You Cannot Enjoy the Benefits of Membership Unless You Take Some of the Responsibility."—Charles Gordon Heyd, M.D., Nov. 17, 1936.

* * *

The Advisory Council of the State Department of Health invited the M.S.M.S. Council to meet jointly with it on August 25, for a discussion of preventive and health problems of the state.

* * *

"Save An Order for the M.S.M.S. Advertiser and Exhibitor" is a slogan that should be heeded by the 4,300 members of the State Society. These business friends help to maintain two important functions of the State Society—the Annual Meeting, and THE JOURNAL.

* * *

The House of Delegates of the M.S.M.S. will convene on Monday, September 18, at 9 a.m. in the Ballroom of the Pantlind Hotel.

All members of the Michigan State Medical Society are welcome and are urged to attend this important meeting.

The Mead Johnson & Company advertisement in this issue of THE JOURNAL will be found on page 756 instead of in the usual position on the front cover. The Publication Committee gratefully acknowledges the courtesy of Mead Johnson & Company in relinquishing its regular position to permit the use of a special cover on the Convention Number.

* * *

Radio Station WOOD of Grand Rapids has kindly offered a 15-minute period to the Michigan State Medical Society for each of its convention days, September 18, 19, 20, 21, 22.

The radio station and its management is sincerely thanked for this opportunity to bring information and important messages concerning the advance of medical science to the public.

The speakers will be:

Monday—Henry A. Luce, M.D., Detroit

Tuesday—H. S. Collisi, M.D., Grand Rapids

Wednesday—L. Fernald Foster, M.D., Bay City

Thursday—B. R. Corbus, M.D., Grand Rapids

Friday—H. R. Carstens, M.D., Detroit

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John Alexander, Ann Arbor, Mich.
Walter C. Alvarez, Rochester, Minn.
Charles R. Austrian, Baltimore, Md.
W. Wayne Babcock, Philadelphia, Pa.
James H. Black, Dallas, Texas
Robert A. Black, Chicago, Ill.
Ralph C. Brown, Chicago, Ill.
Richard B. Cattell, Boston, Mass.
James C. Carr, Chicago, Ill.
Russell L. Cecil, New York, N. Y.
Warren W. Cole, Chicago, Ill.
C. Donald Creevy, Minneapolis, Minn.
George W. Crile, Cleveland, Ohio
William R. Cubbins, Chicago, Ill.
Elliott C. Cutler, Boston, Mass.
Walter E. Dandy, Baltimore, Md.
Loyal Davis, Chicago, Ill.
Joseph B. DeLee, Chicago, Ill.
Claude F. Dixon, Rochester, Minn.
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Evarts A. Graham, St. Louis, Mo.
Howard K. Gray, Rochester, Minn.
Donald Guthrie, Sayre, Pa.
Russell L. Haden, Cleveland, Ohio
William D. Haggard, Nashville, Tenn.
Verne C. Hunt, Los Angeles, Calif.
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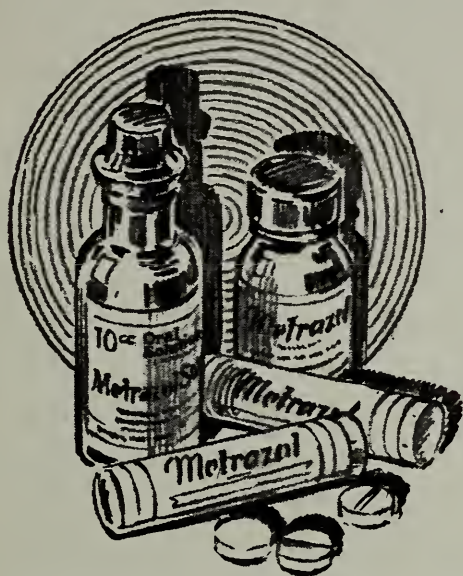
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Hotel reservations should be obtained immediately, if you are planning to attend the 1939 Grand Rapids convention of the M.S.M.S. A registration of approximately 2,000 physicians is expected.

Remember the dates: September 18 (House of Delegates), 19, 20, 21, 22 (Scientific Program); the place: Pantlind Hotel-Civic Auditorium, Grand Rapids.

Our Front Cover

The photo on our front cover shows the hospitable portals of the Civic Auditorium, Grand Rapids, in which beautiful building the 74th Annual Meeting of the Michigan State Medical Society will be held September 18 to 22, inclusive.

At the 35th annual state convention of County Supervisors and Superintendents of the Poor in Cheboygan, Michigan, July 25-26-27, the Michigan State Medical Society was officially represented by President-Elect B. R. Corbus, M.D., of Grand Rapids. Other members of the Society present were Drs. G. L. McClellan, W. P. Woodworth, and Allan McDonald of Detroit, and W. S. Ramsey of Lansing; Executive Secretary Burns also attended the conference.

Dr. Corbus' paper entitled "Our Mutual Problems" was presented on July 25.

* * *

The Trustees of the Rogers Memorial Sanitarium (Oconomowoc, Wisconsin) announce the addition to its medical staff of Donald A. R. Morrison, M.D. Dr. Morrison was formerly Rockefeller Fellow at the Pennsylvania Hospital for Mental and

Nervous Diseases, Assistant Physician at the Eloise Hospital, Eloise, Michigan, and for the past two years Instructor in Psychiatry at the University of Chicago Medical School.

During the past two years the Trustees of the Sanitarium have expended considerable money in enlarging and beautifying the Sanitarium building grounds. An up-to-date kitchen, a laboratory, hydro- and physio-therapy departments and a beauty parlor have been installed. Much of the old furnishings have been replaced and the physical properties brought up to date.

* * *

Afflicted Child Commitments for the month of July, 1939: Total cases 270, of which 48 went to University Hospital and 222 to miscellaneous hospitals. Of the above, Wayne County sent 6 to University Hospital and 23 to miscellaneous hospitals, for a total of 29.

Crippled Child for July, 1939: Total cases 45, of which 21 went to University Hospital and 24 to miscellaneous hospitals. Of the above Wayne County sent 0 to University Hospital and 2 to miscellaneous hospitals, for a total of 2.

A Special Meeting on Medical Service Problems will be held Sunday, September 17, at 8:30 p. m., in the Grand Ballroom, Pantlind Hotel, Grand Rapids. All MSMS Councilors, Officers, Delegates and Members are urged to attend this session, at which Group Medical Care Plans, Medical Welfare, and the Afflicted-Crippled Children Laws will be discussed.

Inter-State Postgraduate Medical Association

This year's International Assembly of the Inter-State Postgraduate Medical Association of North America will be held in the Palmer House, Chicago, Illinois, October 30, 31, November 1, 2 and 3.

The high standing of its medical profession, combined with the unusual clinical facilities of its great hospitals and excellent hotel accommodations, make Chicago an ideal city in which to hold the Assembly.

The Association, through its officers and members of the program committee, extends a very cordial invitation to all physicians in good standing in their State and Provincial Medical Societies to attend the Assembly.

The members of the profession are urged to bring their ladies with them as a very excellent program is being arranged for their benefit by the Ladies' Committee.

The Chicago Medical Society will be host to the Assembly and has arranged an excellent list of committees who will function throughout the Assembly.

The program consists of approximately eighty clinics and addresses covering the latest advancements in medical science. The contributors have been selected from among the most outstanding teachers and clinicians of North America.

The registration fee of \$5.00 admits all members of the profession in good standing.

Pre-assembly and post-assembly clinics will be conducted in the Chicago hospitals the Saturdays previous and following the Assembly for visiting members of the profession.

A program will be mailed to every member of the medical profession in good standing in the United States and Canada on or about September

first. If any member of the profession in good standing does not receive a program, please write the Managing-Director at once and a copy will be mailed.

The list of distinguished teachers and clinicians who are to take part on the program appears on page 826 of the advertising section of this JOURNAL.

COMMUNICATIONS

Michigan State Medical Society
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Gentlemen:

Not long ago I found myself an unfortunate defendant in a ten thousand dollar malpractice suit extending through two or three very anxious days.

Due to an impartial judge, an openminded jury, backed by my fellow practitioners, together with efficient defense counsel furnished by the State Medical Society, also by the Medical Protective Company with whom I have carried a policy for many years, the jury brought in a verdict of "no cause for action."

Although I have carried a protective policy for more than forty years and protection in the State Medical Society ever since it established that branch of service, this is the first time I have had occasion to use either.

I feel that this one occasion, however, is full compensation for all the expense of the past.

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Acknowledgment of all books received will be made in this column and this will be deemed by us a full compensation to those sending them. A selection will be made for review, as expedient.

LEGAL ASPECTS OF CHRISTIAN SCIENCE: By J. H. Rubenstein. Member of the Chicago Bar. Chicago: The Crandon Press.

As the title implies, this little brochure of thirty-three pages classifies decisions that have been made by the various courts on matters in which Christian Scientists as such have been concerned. The work appears to be adequately documented and it is indexed for convenient reference.

ENDOCRINOLOGY IN MODERN PRACTICE: By William Wolf, M.D., M.S., Ph.D., Endocrinologist to the French Hospital; Attending Endocrinologist, Misericordia Hospital, New York City; Consulting Endocrinologist, New York University Dental School. Second edition, completely revised. Philadelphia and London: W. B. Saunders Company, 1939.

Endocrinology is a fast growing department of medicine. In the second edition of his book, the author has embodied the advances that have been made since the original volume was published. The present contains a new section on the use of protamine zinc insulin in the treatment of diabetes. The author has likewise considered in detail the diagnosis, as well as pitfalls in therapy, in hypoglycemic states. A new section has been added dealing with the relationship of autonomic nervous system and the endocrine glands. He also discusses the role which vitamins play in diseases of the ductless glands. Chapter XXXI is devoted to laboratory procedures and Chapters XXXII and XXXIII discuss the various commercially available endocrine products on the market. It is impossible to catalogue all the special phases of the subject dealt with by the author. The work will be found of immense value, not only to the general practitioner and internist, but to the surgeon as well.

HYPERTENSION AND NEPHRITIS: By Arthur M. Fishberg, M.D., Associate in Medicine, Mount Sinai Hospital, New York City. Fourth edition, enlarged and revised, published 1939. Octavo, 779 pages, illustrated with 40 engravings and a colored plate. Cloth, \$7.50, net. Philadelphia: Lea & Febiger.

This work has been long enough before the medical profession to have an established reputation. The fact is further substantiated by the call for a fourth edition. The revision has involved changes in all the chapters, even to the extent of rewriting a large number of them and an addition of a chapter on Azotemia. The author discusses the surgical treatment of essential hypertension. Since probably the majority of cases of essential hypertension are seen by the family physician, with limited laboratory facilities, the author emphasizes the diagnosis by clinical methods such as symptomatology. The work is a real contribution to hypertension as well as renal disease in general.

ORGANIZED PAYMENTS FOR MEDICAL SERVICES. By the Bureau of Medical Economics, American Medical Association. Paper. Pp. 185. Chicago. American Medical Association, 1939.

It would stretch the imagination of a social planner to devise any scheme for the organized payment for medical services that is not described in this publication of the Bureau of Medical Economics of the American Medical Association on "Organized Payments for Medical Services." Several

hundred plans for medical care of the indigent involving governmental support and medical society management are explained. Social Security legislation has brought about changes in medical arrangements reaching into almost every locality in the United States and affecting health departments, medical societies, and state and local governments. Types of plans proposed by the Farm Security Administration to provide medical services to Administration clients in 127 counties and covering 100,000 low income families are described. Medical societies have organized postpayment and prepayment plans of medical care offering a wide selection of types. Some provide for a cash indemnity to be paid to the insured with which he can purchase his own medical services and others provide medical service directly.

Industries, unions, fraternal organizations, and all sorts of mutual societies provide medical benefits for their members by a variety of prepayment devices. Some 3,000,000 persons are covered by group hospitalization plans, which show a wide variety of relations with state and county medical societies. Commercial insurance companies, all of whom pay benefits in cash, are also entering this field on a large scale. It is estimated that approximately \$300,000,000 in cash is paid out annually by insurance companies to assist in paying medical bills.

The House of Delegates of the American Medical Association has endorsed cash indemnity prepayment plans, but has not sought to prohibit any of its component societies from cooperating with or organizing other types of prepayment for medical service provided their character is not such as to render it impossible to give good medical service.

The number and variety of the plans for medical services—operating and proposed, postpayment and prepayment, service and cash, medical society and other organization sponsored—give proof of the efforts that are being made to supplement the private practice of medicine and indicate a desire to discover, by social experimentation, a solution of local medical problems.

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STAFF CONFERENCE, DEPARTMENT OF INTERNAL MEDICINE

(Continued from page 778)

did not start again. I do not recall whether the patient had received digitalis or not but I think she had. Of course the warning has been expressed regarding the administration of calcium where digitalis has been given. There is some question as to whether there is danger giving digitalis after intravenous calcium has been given.

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2. Albright, F., Hirsh, W., Sulkowitch, H., and Bloomberg, E.: A comparison of the effects of vitamin D, A.T. 10, and parathyroid extract on the disordered metabolism of rickets. Jour. Clin. Investigation, 18:165, (Jan.) 1939.
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Among Our Contributors

Dr. Frederick C. Kidner was graduated from the Harvard University in 1904. He is a specialist in Orthopædics, and is associate professor, Wayne University Medical College, Extramural Instructor, University of Michigan, also Director of the Orthopædic Department of Children's Hospital, Detroit.

Dr. Clifford B. Loranger is a graduate of the Wayne University College of Medicine, Class of 1926. At the present, he is practicing general surgery. He has been connected with the Department of Anatomy at the University for ten years and is teaching Applied Anatomy in the Graduate School.

Dr. Reed Miller Nesbit received an A.B. in 1929 and M.D. in 1925 from Stanford University. He was an interne at the Fresno County Hospital. From 1926 to 1929 he was an Instructor at the University of Michigan, from 1929 to 1932 he was assistant professor of surgery and in 1932 became associate professor of surgery at the University of Michigan. He has been in charge of the Section of Urology in the Department of Surgery, University of Michigan, since 1930.

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THE JOURNAL

OF THE

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ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

VOL. 38

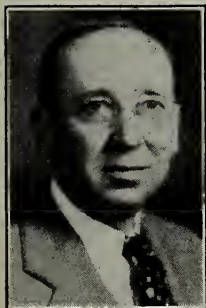
OCTOBER, 1939

No. 10

WHAT PRICE DEPRESSION?*

ROCK SLEYSER, M.D.

WAUWATOSA, WISCONSIN



ROCK SLEYSER

As a preface, I wish to make clear that nothing I am about to say, is to be construed as in any way a political argument, a sermon, or a mere cynical outburst of rebellion at changing conditions. It is an attempt to evaluate the effect of certain influences on the individual and mass thinking of today.

The future of mankind will depend, as it has in the past, on the thinking and mental health of the people. Mass thinking is but the collected thinking of the individual. By "mental health" in this consideration, I broaden the term to mean a thinking which adjusts the

individual, and collectively the people, to conditions in such a manner as to in the end promote progress, security, morals, health, happiness, independence, and self expression. I include under "mental health" the possession of those attributes on which the advancement of civilization has so largely depended—such qualities as character, honesty, ideals, morals, industry, unselfishness, and good citizenship. These attributes have indicated mental health and have determined conduct. Deviation from them in individual or mass thinking has always resulted in a halt in progress and usually in regression.

If we as physicians are concerned with something more than the individual's structure and the functioning of his parts, if we believe we owe something beyond repair to the structure when damaged or correction of function when at fault, then we must assume some responsibility for the way man individually and collectively functions in his adjustments to life. We must realize a responsibility to mental as well as to physical health, and this responsibility should

be assumed by all branches of medicine and not by psychiatry alone.

We are all frankly anxious about the future of our own country and of the world. The prevalent spirit of hatred and aggression, the preparations for war, the loss of liberty and independence, the colossal debts contracted for future generations to pay, are cause for grave concern. As a physician, however, I am more concerned with man himself who is subject to these conditions than I am with the conditions per se. Assuming a responsibility as physicians for man, are we aware of what is happening to him? Are we exercising a vision our special training should have given us? Are we raising our voices in protest at conditions which are affecting his thinking and his moral fiber?

We face a troubled world—a world in which the old ideals and objectives have been strangely altered. In their place have been substituted new teachings and philosophies which lead to the regimentation of man at any cost. These are days which call for clear thinking by those trained to interpret what is happening and why. Certainly one approach—possibly *the* approach to an

*This is the annual Andrew P. Biddle oration delivered before the 74th annual meeting of the Michigan State Medical Society, Grand Rapids, by the president of the American Medical Association.

answer—will be found in a study of these conditions and influences as they affect the thinking of the individual.

From a medical standpoint, we must look forward into the future and try to understand what is happening to those who will come to us for help and guidance. I am frankly concerned over future as well as present problems resulting from the depression years, especially as they relate to the developing age group. Here is a group maturing under influences, under difficulties we did not have to cope with in establishing a place for ourselves. Here is a group reacting not only to the normal feelings of resentment and discouragement at obstacles more difficult than their elders were forced to overcome, but influenced emotionally by a propaganda deliberately set to shape the thinking of the individual toward certain ends, and to make him unfit to work out his problems by developing his own resources. Suggestable to present day attitudes toward fundamentals, to deliberate propaganda favoring dependency, to collective rather than individual responsibility for security—what will be the price to be paid in mental health? To the present burden of the mentally handicapped, what added load may be expected from the discouragement, the frustration, and the effects of present day influences on the emotional and mental lives of this age group?

A moment's reference to today's problems causes concern. If influences at work add to it in a degree which seems likely, we shall indeed ask "What Price Depression?" for today patients with mental disease occupy 47 per cent of the hospital beds in this country, and for the country as a whole, the number of persons hospitalized for mental disease increased more than 40 per cent from 1926 to 1936.

It is impossible to draw a hard and fast line between mental health and mental illness—just as it is between physical health and physical illness. This is because there are varying degrees of mental health. Many people who would never be considered "mentally ill" as we use the term, are nevertheless definitely handicapped in the race of life by mental and emotional traits and states. These are not the institutional types just referred to as hospitalized. Rather are they the dependent, the unhappy, the unsuccessful, the offenders, and the chronically

ill. All of these, bluntly stated, define the scope of our problem.

Time was, within the remembrance of each of you, when we who are here today were acquiring the mental and emotional equipment with which to cope with life and make our way in society. First of all, we were told of a world which had struggled through centuries of oppression and of our father's final escape to America—a land dedicated to the principle that government exists for its people, and not its people for government. It was a land of opportunity—a land where hard work, frugality, self improvement, and self denial would be rewarded. These rewards were a sacred right to those who earned them. It was a land of racial equality and religious liberty; and its people worshiped God in their own way, but they worshiped him. It was a land where word given was an obligation to be fulfilled whether by individual or government. It was a land where debt was to be shunned, and thrift encouraged. We were taught to live within our means, save for a rainy day, establish our own security, honor our obligations, respect the rights of others, provide for the deserving less fortunate by private giving, and to protect with all our resources this land of freedom and of opportunity.

The founders of the nation fought to establish the rights of life, liberty, and the pursuit of happiness, and framed a government which they believed safeguarded them for posterity. By its Declaration, its Constitution, and its Bill of Rights, the individual was believed protected against the domination of any autocratic power. It was believed that men freed from the exactions, the impositions, and the direction of government, could develop as individuals; work out their own destiny, and reach a plane never known before. This belief was justified. A people free of direction and paternalism became self reliant, and carved in a wilderness, a country with resources, health, happiness, and comforts never known before.

Today, we look at a world torn and disrupted by hatred, violence, and aggression. Philosophies of racial superiority, of class consciousness, and of political domination, sacrifice the individual and all he has worked for and held dear. Having fought through centuries for the opportunity of self devel-

opment and self expression, we find man sliding back into the position of a puppet of the state—dominated, mechanized, and regimented by political overlords. What has happened to his thinking? Why are these developments possible?

Since the world war, and especially since the onset of the depression, changes have taken place which we did not believe possible before that time. These changes are more easily understood abroad than at home, for the people of those countries have never enjoyed our standards of living, and have in the past few years been subjected to hardships we have not known. Of one thing, however, we can be certain—only a leadership appealing to the emotions rather than reason could have brought about a surrender of personal liberty such as we have seen. Sane and balanced thinking would never have sanctioned it.

Similar trends in our own country are cause for grave concern, and the infiltration of foreign philosophies into the thinking of our own people is a challenge to those interested in the preservation, not only of our type of government, but of our type of American citizenry. We cannot deny that the past twenty years has seen a decline in morals, in honesty, in initiative, in industry, and in independence. We cannot deny a new pattern of thinking and behavior—a changing attitude toward fundamentals—a certain feeling of hopelessness, and a willingness to surrender to doctrines of fantastic promise.

The ending of the world war saw a "let down" in emotional tenseness. We had willingly sacrificed and submitted to denial and regimentation in a manner unknown of our generation—all for a great ideal. The world was to be made "safe for democracy." In the following ten years, a reaction was inevitable. To resort to the vernacular—"the lid was off." It was a period of "jazz" and "whoopee." Fortunes were made and lost almost over night. The whole tempo of life was speeded far beyond a normal limit. Abroad we saw a post war settlement unjust, and bound to lead to the developments of the past few years in Germany, Russia, and Italy. The Wilsonian doctrine we had fought for was thrown overboard. War debts and pledges we had considered sacred were repudiated. But what cared we? "On with the dance—let

joy be unconfined." Prosperity was here—prosperity such as we had never known before! It was a mass hysteria. No one saved for a rainy day. The politician sang "Happy days are here again"! There was no propaganda for communistic or socialistic doctrines. No one looked to government for support or security. And then the crash—the inevitable reaction—the "cold gray dawn of the morning after." Confidence was replaced by panic, anger, and fear. Some one must be made to suffer—someone must be punished. The American mind was for the time being receptive to a new type of influence and certain forces were ready to take advantage of the situation.

Periods of want, of unemployment, of idleness through business stagnation, have ever been opportune times for the dishonest politician, the impractical theorist, the reformer, and the demagogue. They thrive on misfortune, for worry is productive of a state of mind receptive to philosophies and panaceas which would never get a hearing in normal times. With plans and ambitions frustrated, with actual want waiting on the doorstep, with fear and anger and envy as pent up emotions, it is easy and comforting to be told that someone else is to blame. When things go wrong, the first impulse is to evade personal responsibility, and to find a scapegoat. It is very easy, as a result of clever suggestion, to develop a persecution complex. Wishful thinking for a quick and easy way out, a short cut, an evasion of the obviously slow and painful way—makes us vulnerable to the theories and philosophies which are worthless and even dangerous by all the rules of appraisal we have used in the past. Emotion rules—not reason. At these times, the opportunist appears as he always has, and the evangelistic and impractical crusader works himself into a frenzy of emotional appeal. Too much idle time completes the set up for the "devils workshop," and the field is now ready for the propagandist, the visionary, and the charlatan doctor of economics.

During the world war, a new mechanism was set up for the purpose of influencing the thinking of the individual and the nation. It was so effective that it was immediately taken up for promotional purposes by government, politician, theorist, and reformer. I refer to "Propaganda." It has

been skillfully developed into an art, and is today, I believe, the greatest outstanding danger to our country and its people. The screen, the press, the radio, the lecture hall, and even the pulpit have been prostituted by this evil. Insidious in its emotional appeal, by the twisting of truth or the artful presentation of half-truths, it molds superficial thought into entirely fallacious opinions. Demands are thus created by organized minorities and false philosophies are promoted. During the past quarter century public opinion has been misled on more than one occasion by skillfully directed propaganda.

There has been no influence in moulding the character and minds of our people in the past that has equaled the influence of the home. All that is good and best has had its inception in a good home and the structure of our life has been built around it. Times have changed, however, and the old-fashioned home is becoming more and more rare. In a facetious mood, Fishbein has defined the home of today as a place in front of the garage to which the children return from the movies at midnight to await their elders' return from the bridge club. Too often it is a place where the modern mother feeds her brood with the aid of a can opener, turns them over to an inexperienced nurse maid, and hurries off to a cocktail party or dinner dance. I may be old fashioned, but I cannot help feeling that these youngsters are being cheated out of the most important factor in the development of mental health and poise, and that the greatest single need of America today is a return to the home life as we have known it in the past.

Contrast if you will the reading of today with that of the past. To begin with, the automobile, the motion picture, and the bridge game, have been so important in our lives that we have had little time to read. How many get farther than the newspaper, and even so, it too often must be the sensational type. Note the evaluation of news in its placement. A gangster's murder gets headlines on page number one—the death of a world benefactor, a quarter column on page six.

With the advent of Freudianism, the novelist of the day gloried in the realism with which he could picture sex. As a result, "Psychopathia Sexualis" was discussed

freely in smart society, and the "modern" woman and man reveled in discussing their fixations and their complexes. The best sellers described situations and elaborated on morbid states in a language heretofore considered obscene. The dramatist was not slow to cash in, and an epidemic of plays depicting nature in the raw as interpreted by the new concept drew capacity houses for months. The unprepared quack took advantage, and neurotic individuals were eager to pay money to talk with the "professor" about their "sub-conscious." The mills of the divorce court were speeded up, round trip tickets to Reno were reduced, and the results were apparent in the morals court and wreckage of home life.

Look over, if you will, the display at any news stand, and then try to evaluate the effect of this popular reading on the mind of today. Your first impression is that of the seeming necessity of nudity on the covers in order to make sales. Note the emphasis on sex and crime. Ponder on the success of recent cheap pictorials and the positive rot they offer to satisfy a degenerating taste in reading. Turn now to three or four of the so-called "high brow" publications of the social sciences, and deny if you can their communistic propaganda. It is heartening to note, however, that in all this display of sordid, cheap, and vicious literature, there are a few left worth reading, and that a little magazine without advertising (*The Reader's Digest*) and the *Saturday Evening Post* (truly American) remain among the best sellers.

The influence of motion pictures on our mental life has grown rapidly in the last twenty years. To many it has brought a wholesome entertainment. To many it has been of distinct educational value. To some it has meant a momentary escape from an unhappy reality into a dreamland of phantasy. Its possibilities for good are great, but there are distinct dangers as well. It may be too easy an escape from responsibility and a detour to avoid a more constructive application of time. Its delineation of ease and luxury may bring envy and dissatisfaction with what we have. Much of the entertainment offered certainly can make no claim as art, much of it is cheap and vulgar, and much of it is downright vicious in its appeal. The title of a clean and well known story is changed when

screened without rhyme or reason, except to appeal to those looking for something risqué. I quote two advertisements for pictures from a recent morning paper:

"Spicy as a show-girl's diary—

A tasty but torrid hit

Oomph girl of the green in her sizzling best."

Another

"Eyes—veiled with the languor of tropical nights—Lips—curved with the temptation of rapturous promise—exotic—desirous—an alluring beauty who fanned the spark of smouldering passion into fierce, flaming ecstasy."

This sort of thing dished up to your adolescent youngster! Have the movies an influence on mental life? Have we as physicians an interest in this sort of thing? Have the mothers and fathers of this great country the stamina to take a stand for decency and against some of the influences I have just covered? Personally, I was heartened when the picture, "Goodbye, Mr. Chips" drew capacity audiences in my home city for two weeks, while the "Alluring Beauty" lasted only one.

Probably no agency today is more effective in influencing the thinking of our people than the radio. It has much that is good—very good, and it has much that is bad—very, very bad. The same instrument that can bring the beauty of a symphony orchestra, can bring the pulsating tempo of a savage jungle jazz, proudly announced as "hot music." And make no mistake in minimizing the influence of music on the emotions! The instrument which brings you a stimulating scholarly lecture, brings you as well a cheap substitute for humor often bordering on vulgarity. The address of a statesman is followed by the impassioned harangue of a demagogue. Most dangerous of all is the propaganda for political effect—so sugar coated in its appeal to the emotions, that its intent and dangers are disguised, and there is no opportunity to unmask it. Because of its emotional appeal, its influence is often far reaching in its effect on individual and mass thinking. The great danger is that under the regulation of a political dictatorship the radio could easily swing the destiny of the nation.

During the depression era, we have seen orderly thinking disrupted by political catch phrases with only an emotional appeal.

What think you of the use in America of such terms as "Torys"—"Special privilege"—"Entrenched greed"—"Economic Royalist"? Are they the appeal of the statesman to reason? Can anyone with love of all our country has held dear condone the use of such shibboleths in their effect on the mental health of a people in distress?

What of "Redistribution of wealth," "The haves and have-nots," "A car in every garage," "The under-privileged"? Are they constructive expressions at a time leadership should inspire courage, or do they tend to increase dissatisfaction, envy and hatred? What of "Every man a King"? Was this intended to inspire the utmost in the development of the individual or was it the cheap clap trap of the demagogue. Mind you, I am not talking politics, but I *am* interested and everyone of us *must* be interested in the effect of such appeal on the mind of man.

Foreign philosophies which have halted progress and all but wrecked the countries of their origin, have been so cleverly promulgated as to cause the gravest concern as to their effect on the thinking of our own people. In their appeal to basic human weakness, through promises of protection and relief of fear, they have made alarming headway. Of these none is more serious than those disturbing the individual's incentive to work for his own security. We would all welcome a Utopia in which some mysterious power would assume responsibility for our old age, our unemployment, and our periods of misfortune, and illness. We must face reality, however, and realize that we are living in no dream land; and that the beneficent power called "state" or "government" who is to father us, is none other than those of our neighbors who are industrious and through political compulsion are forced to support us. I am sure none of us has any quarrel with tax support of the indigent. I do protest, however, the utterly cruel and senseless campaign to undermine that quality of mind which has furnished the incentive more than any other for effort that has developed the individual and the nation.

The only real—the only dependable security—is the security that comes from resources within oneself. Any philosophy that promotes security at the expense of independence, that supplants self reliance with

the false contentment of dependency on others, destroys initiative and unfits the individual to compete in the race of life. It is a harking back to the infantile method of securing satisfaction expressed by the words—desire—cry—satisfaction. Life changes this with maturity to a sequence of desire—work—save—satisfaction. This formula is fundamental to progress and no political pandering or wet-nursing can change it without wrecking the objective for which it was intended. The doctrine that “the world *owes* us a living” is neither stimulating to the individual nor to the nation. What the world *owes* us can only be measured by the effort we are willing to make as *our* contribution to making it a better place in which to live.

Today, we face a troubled world. Perhaps never before has it been so under the influence of emotional control. Its unhappy maladjustments are cause and effect of mental and moral deviations from the standards evolved through experience. The mind of man is bewildered and confused. The teachings, the codes and the ethics on which he has depended to guide him in effecting his placement in relations to others are being attacked and destroyed.

He has been taught honesty and the sacredness of an obligation, only to see government, which he was taught to respect, repudiate debts, violate contractual obligations, and desert party platforms.

He has had a religious training which taught tolerance and the golden rule, only to see those in high places preach and foster class hatred, racial discrimination, and religious intolerance.

He has been taught to work hard, to save, to live within his means, and to acquire for his own competence. He cannot reconcile this with the spectacle of government extravagance and spending beyond income nor with the piling up of debts for future generations to pay. He cannot square this training with a philosophy of more pay for less work; not with the intervention of a third party to tell him if he may work, when he may work, where he may work, and how he may work. He cannot justify, with his training, a theory that he has a right to the property of others, or that they have a right to his—no matter how indirect the way of redistribution. To him such a theory is plainly dishonest.

Reared with a belief in Deity, and the

acceptance of a standard of ethics by the great teacher of Galilee, he finds himself in a world drifting away from a faith which has gone hand in hand with all social progress, and he is deeply conscious he lacks a support he may not be able to define.

The mind of man is confused. The influences of the past few years have been too intricate to grasp and to evaluate in orderly fashion. Perhaps in the day of our fathers, when men fought the forces of man and nature, when men knew what they wanted, when men were accustomed to think for themselves, and to reason from available knowledge—perhaps these influences would not have been as effective as they are today. A breakdown of the sense of individual responsibility is a menace to the individual, to the nation, and to mankind. There is no greater threat to our country than a defeatist state of mind. If, in his search of security, man is willing to yield all he has struggled for through the centuries, the price will be far too great. If the influences of these years mean a breakdown in those qualities of mind which have brought the blessings of this century, and leave in their wake a lowered intellectual and moral integrity, we may well ask—“What Price Depression”?

With a full realization of the seriousness of the times, I cannot be altogether pessimistic about the future. The American type of mind has always settled down to efficient functioning after storms of emotional upheaval. It is time, however, for the profession and the public alike, to recognize the sinister influences at work, and to come out in the open in defense of a thinking that has made our Republic the envy of the world. It is a time to think clearly—to feel calmly. It is a time to face reality manfully, and avoid short cuts to Utopia. It is a time to preach tolerance, fairness, and charity. There can be no future without honesty and unity of purpose.

I, for one, cannot go along with a teaching which tells the discouraged that there is no future, that unemployment is here to stay, that “a changing social order” has closed the door to individual effort, initiative, and opportunity. I cannot condone a defeatist teaching that there are no more frontiers to conquer, that all the gold has been discovered, that all the virgin resources

are exhausted. Let us face the future. Opportunity was never found in the past—it was found in thinking our way through the days to come. Constructive effort today will not confuse the mind of man with a philosophy of defeatism, hatred, limited effort, and willingness to surrender to political control. Rather will it direct his attention to the opportunities of tomorrow, and the rewards for effort and hard work. The men who in this year 1939 are pioneering a Yankee Clipper in trans-oceanic service; the men who are developing air conditioning in home, office and factory; the men

who are building a new super railway service; the men who are bringing into being a new world through chemical research—these men have no time to listen to a philosophy of less work and controlled effort—for they are busy dreaming, thinking, planning, doing. The future of the world will depend on the influence we can bring to bear on the mind of man—influences to combat all that has taken place in these depression years. Let us face a realistic future with faith and a firm determination that the mental, moral, and spiritual standards of the past shall be maintained!

IDEALS

H. A. LUCE, M.D.

President of the Michigan State Medical Society

DETROIT, MICHIGAN

Doctors of medicine are in assembly here this week at their annual meeting under the banners of the science of medicine. What is meant by the science of medicine? Who are doctors of medicine? What part do they play upon the stage of the world? Each individual with the degree of doctor of medicine is a person who primarily has completed a legally required amount of study and training in the science and art of medicine, a study and training in the methods known to defeat or limit the destructive forces which assail human life, health and happiness.

It is of interest to know that in the year 200 A. D., the Roman Emperor, Septimus Severus, first introduced a system of licensure for those who treated illnesses. Even as early as 370 A. D., a student of the healing art was required to furnish a birth certificate as well as a certificate of good conduct. In those early days medical knowledge and technic benefited only the wealthy class. No provision was made for the poor except through the generosity of the doctor. This idea appears to have originated then and has continued through the centuries to the present day.

Another factor has followed down through the ages and that is that humans prefer to obey mysterious instructions rather than the prescriptions and directions of physicians. This explains the ever present menace of cults and irregular practitioners. People do not use the same judgment about the care of their physical and mental health that they do of their automobiles and pet stock.

The life purpose of the doctor of medi-

cine is to increase the sum of scientific knowledge and to transmit the benefits of that knowledge to the public. The science of medicine has ever been at war with mysticism and charlatanry. Today are added those groups who see in the distribution of medical care an opportunity to capitalize upon human misery for the purpose of political and selfish aggrandizement.

The chief capital investment of the medical profession is represented by the constantly accumulating wealth of knowledge stored in the minds, ideas, traditions and publications of its members, all of which is shared freely among all its members and with the public. This capital never has been monopolized for profit and does not fit into the capitalistic concept of economics. No one ever did nor ever will become an economic royalist out of the practice of medicine.

Service to humanity is the only reason for the existence of the medical profession.

Any incorrect distribution of this service is of itself in conflict with the objectives of the donors of the service. The maintenance

*President's Address to the General Assembly, Michigan State Medical Society, Grand Rapids, September 20, 1939.

and restoration of health and the postponement of death are the chief objectives.

There is not one kind of medical care for the socially and economically fortunate and another for those who stand at the other end of the line—the indigent and medically indigent. There is only one kind of care for everybody and that is the best care available in the locality in which the one in need resides. Food, clothing and shelter are subject to wider variations in quality without destructive action upon the recipients.

The public does not have a medical need which the medical profession is not keenly anxious to supply. The laboring man, the farmer and the doctor of medicine have interests much in common. The physician would be as pleased as any, had these fellow citizens of his enough annual income to provide adequately for their medical needs. That the laboring man is in a low income group is not the fault of the family doctor, but rather the responsibility of those who now offer him sap in the form of socialized medicine.

The very objectives of the doctor of medicine take his vocation out of the realms of a business enterprise, half-baked theorists and those who believe in a totalitarian state, to the contrary, notwithstanding. The practice of medicine is not a commercial pursuit. It is the one and only type of occupation that is continually striving to put itself out of existence. This seems unbelievable at first thought, but it is true. One has only to refer to history and learn of the human suffering and loss of life that followed in the paths of plague, malaria, typhoid, diphtheria, smallpox, et cetera, all practically eliminated at present by the science of medicine. This battle to eliminate disease continues today and will continue unabated long into the future, unless the science of medicine is put under political and bureaucratic control.

We could exist very completely and possibly as happily without many of the so-called scientific advances in other fields.

Much of the improvement in the rapidity of transportation only enables the public to become involved in accidents more quickly. The improvement in lighting facilities enables us to enjoy better vision, but it also lengthens the hours of dissipation. The improvements in armament enables men to kill one another at longer distances.

A materialistic world has given undue credit to non-medical scientific achieve-

ments that have added little if any to human happiness. What would happen to the world today if the scientific advancement of medicine were suddenly set back a dozen centuries? It is fearful to contemplate. Misery, death and desolation would again run rampant and it is not improbable that all human life might be wiped from the face of the globe.

In a thousand places in this hectic world of ours today and every day independent individual workers are devoting their lives and efforts to defeat the destructive forces which war upon physical and mental health. They are not engaged in the development of new engines of destruction to be used in wars to destroy human life. They are not struggling to make one nation economically and territorially superior to another. They are not interested in class wars nor involved in titanic struggles to develop industrial supremacy and stifle consumption. They are bending every effort to enlarge and improve the scope of their usefulness. They are delving into the causes of illness and maladjustments. They are seeking new methods of attack upon insidious foes. They are allying themselves with other agencies which have similar objectives.

Down through the ages, the science of medicine has had only one objective, i.e., the extension of scientific knowledge and the availability of that knowledge through its distributors, doctors of medicine, into the field of public service.

In that group of twelve chosen by the Greatest Physician of all time, the man of Gallilee, there was a doctor of medicine. It is noteworthy that St. Luke was not the traitor—never in history has the science of medicine been a traitor to truth, nor has it sold its objectives for pieces of silver.

Of course, medical men are after all mere humans. We find some busy, some idle; some rich, some poor; some honorable, a few dishonorable. They are usually very tolerant, and, having to face the realities of life continuously, develop fairly well-adjusted personalities. Socially, as an escape from the ever-present traumatic episodes of their daily life, they are inclined to relax to an extreme degree from which they recover quickly.

The zeal to work with a high and noble objective in mind, the ever-conditioning of the personality by the environment, the training to face reality, the contact with hu-

man suffering and unhappiness have all contributed to the development in the distributors of medical care a type of character and a personality that in a confused and disoriented world is and has been unappreciated.

Never has organized medicine had any objective except that of relief of suffering and the prevention of illness.

The physician as a local member of society is a good citizen in all that the words imply. To almost a 100 per cent degree is he a law-abiding, tax-paying stable citizen. He usually forms an integral part of the group in any community that is interested in local economic and social improvements.

He is among the first that are thought of, if any civic enterprises are contemplated. He always buys the first church raffle ticket and makes the first donation towards "old home week." He has usually bought the "gold brick" stock or wild cat oil well shares in every community. Not that this is a contribution to society, but it helps to keep money in circulation at least.

To have been honored during this past year with the leadership of this group of medical men, as represented by the Michigan State Medical Society, is deeply appreciated by me. It means much more to me

than mere organizational selection. It means a recognition of my love, nay even my veneration, for the science of medicine and of my admiration for these fellows of mine who labor with me.

To all those, again, let me express my appreciation of your kindness and consideration during my year as president. And, furthermore, may I express my wish for a continuation of the joy and happiness to you that comes from achievement in your chosen field.

At the close of your life's day, I would that I could be there to repeat the words of Daisy Thorne Gilbert, dedicated to "My Doctor":

"Kind angels, when you meet him there, let one
Bright wing droop helplessly, as if in need;
Or dim, if but a little while, the sun
Of your perfection; for his healing plead

And down the golden streets of those sweet lands
Point out some heavenly homes; and promise then
That some of these will seek restoring hands
And kindly cheer, as did the sons of men.

For if he cannot help and come at call,
It will not heaven be to this brave soul,
Whose life was spent a ministry to all
But self; love of humanity his dole

Let him believe, until he learns your way,
That need of him will bless each busy day."

POLIOMYELITIS

HAROLD B. ROTHBART, M.D.

DETROIT, MICHIGAN

Acute anterior poliomyelitis is an infection of the central nervous system, involving principally the motor cells of the spinal cord, that may result in paralysis. The paralysis is characteristically flaccid and asymmetrical.

The seriousness of poliomyelitis is greatly overemphasized. Much of the fear embedded in the mind of the public is unfounded and based on erroneous impressions gained from various sources, particularly the press. The medical profession is not entirely blameless, for by perpetuating the expression, "infantile paralysis," it has focused attention upon sequelæ which do not always develop. Infantile paralysis is a misnomer, for neither is it common in infancy, nor does it always lead to permanent paralysis. Indeed, many patients escape paralysis entirely. The term should therefore be discarded—it serves no useful purpose, and a healthier attitude towards poliomyelitis could be achieved through the dissemination of more accurate information.

Poliomyelitis is an infectious disease

which is, however, not particularly contagious. Even during epidemics the case incidence is relatively low. In one of the largest epidemics in this country, that of New York City in 1916, there were only 1.59 cases per 1,000 population. Rarely do figures exceed a height of 3 per 1,000 even in rural sections, where acquired immunity is less prevalent than in urban centers. Such data demonstrate that the disease possesses a low degree of contagiousness and that a large proportion of the population is immune to it.

*Presented before the Wayne County Medical Society, Detroit, May 9, 1938.

As a rule, only one member of a family is afflicted, second cases rarely being found in the same household. The age distribution indicates that poliomyelitis is essentially a disease of childhood, the majority of the cases occurring in the first decade of life. Only 2 per cent are encountered in those over 15 years of age, and few are observed in infants under one year. In rural parts of the country, the incidence is higher in the older age group, 10 per cent being found in those over 15 years old. This is attributed to a lessened exposure to the disease in the early years of life, when repeated contact with subinfective doses stimulates the production of active immunity.

It is generally conceded that an ultra-microscopic virus, 8 to 50 μ in size, is the etiologic agent of poliomyelitis. Various attempts at isolating other microorganisms have been unsuccessful. Rosenau's claims that a pleomorphic streptococcus is the causative agent has not received general support or confirmation. The virus is present in the nasopharynx, tonsils, lymphoid tissue, olfactory nerve, and the central nervous system, especially the medulla, spinal cord, sympathetic chain or nerve tissue, and posterior root ganglia. It has never been recovered from the spinal fluid and occasionally from the blood and gastrointestinal tract. The infection is largely spread by patients and human carriers. Animals do not harbor the virus and all but the monkey are considered immune to the disease. Water and milk can conceivably serve as sources of infection. Hygienic conditions play an insignificant rôle. Poliomyelitis prevails chiefly in the summer months and early fall, but may appear at other times of the year.

The pathogenesis of poliomyelitis is not clearly understood and general agreement is lacking concerning the pathways by which the virus invades the central nervous system. The most accepted view considers the nasopharynx as the portal of entry. This was established experimentally in monkeys by nasal instillation of a cord emulsion from monkeys who died of the disease. Sectioning the olfactory nerves prevented the infection. This suggested that the virus did not reach the nervous system by way of the blood stream or lymphatic drainage but rather by passage through the olfactory nerve tract to the brain tissue and from there by direct continuity to the midbrain,

pons, medulla, and spinal cord. Introducing the virus into the gastrointestinal tract has proved ineffective, and intravenous injection produces the disease only on condition that the olfactory tract be left intact or the brain be first traumatized. Recent reports from Yale investigators intimate that monkeys can be infected by subcutaneous injection of the virus, even with the olfactory nerves cut. Toomey has been able to produce poliomyelitis in monkeys by introducing the virus into the subserosa of the gut. He has demonstrated unmistakable pathology in the sympathetic nerves, posterior root ganglia, spinal cord, and brain. Thus, while the nasopharynx is the simplest and most plausible portal of entry, the other possible routes should be kept in mind. Whatever animal experimentation may prove or disprove, the pathogenesis of the disease in the human being is still shrouded in mystery, for experimentation here is not possible. Speculation must still exist as to how the virus gains entrance into the central nervous system, although most observers accept the nasopharyngeal route as the most likely portal of entry in man.

The virus has a marked affinity for the gray substance of the cord and to a lesser degree for that of the brain. The sparse inflammatory reaction in the white substance may be due to the high cholesterol content of the myelinated nerve tissue, which absorbs the virus, thereby lessening or completely abolishing its virulence. Pathological lesions are observed in the cerebral hemispheres, cerebellum, medulla, basal nuclei, and spinal cord. Most of the histopathology is confined to the gray matter of the anterior horns, especially in the cervical and lumbar enlargements of the cord. To a much lesser extent the posterior horns, posterior root ganglia, and motor tract share in the inflammatory reaction. Very little can be seen on gross inspection aside from edema and injection of the blood vessels. Microscopic studies reveal punctate hemorrhages, congestion, and perivascular infiltration with mononuclear cells. Some of the capillaries appear occluded and others collapsed as a result of the external pressure exerted by the congestion and the cellular infiltration. The neuron cells may show varying degrees of necrosis and dissolution resulting from the pressure effects of the edema, the nutritional disturbances

consequent to the diminished blood flow, and the toxic action of the virus itself. Scarring with neuroglial tissue and cavitation may subsequently follow where the infection has been severe and the affected parts of the brain and spinal cord become smaller than the unaffected areas. Atrophy of nerve trunks, tendons, muscle, and bone represents the end stage of the disease, growth is retarded, and the paralyzed extremity fails to develop normally. The lesions that are found outside of the central nervous system cannot be regarded as specific for poliomyelitis. Generalized hyperplasia of lymphoid tissue is commonly observed. Perivascular infiltration in the liver and cloudy swelling of the kidneys, which may initiate a clinical picture of nephrosis, are sometimes encountered. The olfactory nerve, surprisingly, does not always show alterations from the normal, despite the fact that the virus has been repeatedly demonstrated in it.

The clinical diagnosis of poliomyelitis is not infrequently difficult, taxing to the utmost one's knowledge of the diseases of the nervous system. After a variable incubation period, not definitely established in man but regarded as four to eighteen days, symptoms develop. These may direct attention immediately to the central nervous system, or, as less frequently happens, the symptomatology is vague and interpreted as a mild upper respiratory or gastro-intestinal infection.

For clarity the clinical course of poliomyelitis may be divided into four stages:

1. The systemic or prodromal stage.
2. The preparalytic stage.
3. The paralytic stage.
4. The postfebrile (postparalytic) stage.

Systemic Stage.—Interpretation of the systemic stage is difficult. Its symptoms are by no means different from those seen in an influenzal infection, and yet in approximately one out of ten such cases, preparalytic manifestations of poliomyelitis develop, either concurrently after several days of illness or within three to four days after the patient has seemingly made an uneventful recovery. The systemic disturbance may be indicative of central nervous system infection from the beginning, before the pathology has advanced far enough to excite a meningeal reaction. Brodie believes this to

be the case, rather than that systemic invasion precedes localization of the infection in the nervous system.

Preparalytic Stage.—It is far more common for poliomyelitis to be ushered in abruptly with preparalytic manifestations. The patient looks quite sick but if he is a child, he is likely to display "less external evidence of that internal misery which the adult so readily conveys to the attendant."

Headache, vomiting, fever, drowsiness, hyperesthesia, and irritability are the cardinal symptoms; muscle tenderness, back and neck rigidity are the cardinal signs. The headache is severe, persistent, and localized to the frontal or occipital regions of the head. Vomiting is present in more than half of the cases. The temperature ranges from 101 to 103 degrees and is apt to be higher in the severer cases and in those with bulbar involvement or extensive encephalitis. The sensorium is usually clear, but there are frequent periods of somnolence from which the patient can be easily aroused. Stupor and coma, if present, point to extensive cerebral pathology. Irritability is almost always present, and the patient resists manipulation. Physical examination reveals neck rigidity which is not as marked as in purulent meningitis. Of more significance than nuchal spasm is stiffness of the back. A moderate rigidity of the back with but slight neck rigidity is more suggestive of poliomyelitis than any other infection of the nervous system. Kernig and Brudzinski signs are not constantly present. The deep reflexes are either normal or hyperactive, and ankle clonus or Babinski sign can sometimes be elicited. The superficial reflexes remain normal. Deep muscle tenderness of the extremities and back are quite characteristic of the disease, but may be absent or be so slight as to escape detection. The abdomen may be tender. Constipation is quite common but so is diarrhea. Not infrequently there is urinary retention and distention of the bladder. Sensory disturbances, except hyperesthesia, are never encountered, and their presence should definitely rule out poliomyelitis. Delirium and convulsions are rare, but twitchings and tremors of muscles are sometimes early symptoms. In many instances the preparalytic symptoms rapidly subside and the patient makes an uneventful recovery without any signs of paralysis.

Paralytic Stage.—The paralytic signs make their appearance usually on the second or third day of the preparalytic stage. However, they may develop suddenly within a few hours or be delayed for several days. They continue to progress as long as the temperature is elevated, but more frequently the maximum paralysis is reached within four to seven days. This paralysis is flaccid and distinctly asymmetrical. The deep reflexes are diminished or lost. Any group or groups of muscles may be affected, including the diaphragm, intercostals, and abdominal musculature. Whether the paralysis is complete or partial will depend on the extent of injury suffered by the motor cells. It is unusual to find an entire extremity completely paralyzed. If great care is taken some residual muscle function can be uncovered which will serve as a useful point in eliminating the possibility of a peripheral neuritis.

In bulbar poliomyelitis, the encephalitic symptoms are more pronounced and one or more of the cranial nerves may become involved, particularly the third, fourth, seventh, ninth, tenth, or twelfth. The ataxic form of poliomyelitis is exceedingly rare.

Occasionally paralysis develops without any premonitory signs. The child may appear well at night only to awaken in the morning with a definite weakness of one or more extremities.

Postparalytic Stage.—The acute phase of the illness, in favorable cases, subsides within a week or two, the temperature returns to normal, and the condition of the patient becomes stationary. Soon, however, improvement can be detected. Muscle function begins to return and continues uninterrupted. Although most of the recovery takes place within several weeks, improvement may continue for as long as six months and sometimes even two years.

Spinal Fluid.—The spinal fluid in poliomyelitis does not present any specific properties that can in any manner be considered pathognomonic of the disease and yet many monographs and manuscripts on the subject tend to convey that impression. As will be pointed out later, there are a number of infections that can produce alterations in the spinal fluid similar to those in poliomyelitis.

Lumbar puncture is usually not done in the systemic stage of poliomyelitis mainly

because the disease is not suspected. Should a tap be made one may on rare occasions find a pleocytosis. As a rule, no changes from the normal need be expected.

With the onset of preparalytic manifestations there are definite alterations in the spinal fluid, although it may be entirely normal. The fluid is usually under increased pressure, crystal clear or slightly turbid, the globulin is present in larger amount than normally, and the sugar content is normal or elevated. The average cell count is 150 to 200, but variations from 0 to 1,000 or more cells are not infrequent. At first the polynuclear neutrophils predominate, but within a few days are outnumbered by the lymphocytes, the former decreasing to about 10 per cent of the total cell count. Smears and cultures do not yield any microorganisms. In the paralytic stage, the spinal fluid rapidly returns to normal. Against a diagnosis of poliomyelitis is a spinal fluid which is purulent or has a diminished quantity of sugar. Complete absence of polynuclear cells in the differential count seriously questions the diagnosis of poliomyelitis.

Infection of the nervous system that may be confused with poliomyelitis are tuberculous meningitis, syphilis, dural sinus thrombosis, serous meningitis (secondary to adjacent pathology, *e.g.*, osteomyelitis of bone, brain abscess), toxic meningismus, choriomeningitis, and the various encephalitides. The clinical picture in all these may be quite similar, including the appearance of the spinal fluid. However, marked diminution of the sugar content in the spinal fluid and a positive Levinson Test will quickly incriminate tuberculous meningitis; serological tests will eliminate syphilis; marked increase of red blood cells in the spinal fluid will favor the possibility of a dural sinus thrombosis. Serous meningitis is often puzzling, but some focus of infection to explain it can usually be discovered, as is also the case in toxic meningismus. In choriomeningitis the cells are *all* lymphocytes, a valuable differential point in arriving at a diagnosis. The encephalitides can frequently be mistaken for polio-encephalitis, especially if the latter is not accompanied by any lower motor neuron lesion of the cord.

The paralytic manifestations of poliomyelitis can be mistaken for various diseases or injuries of bones, muscles, and joints, as well as the vitamin-deficiency diseases—

scurvy, rickets, and pellagra. But these can be readily dismissed if they are kept in mind. In multiple neuritis sensory changes are common and the lesions are symmetrical. Postdiphtheritic paralysis can ape poliomyelitis in many respects, because the diphtheria toxin also injures the anterior horn cells. A history of sore throat and absence of signs of meningeal irritation should readily establish the correct diagnosis.

It is clearly seen that poliomyelitis is not a particularly easy infection to diagnose. It is impossible in the prodromal stage, unless a lumbar puncture is done for some other reason than the presenting symptoms and a pleocytosis of polynuclear and mononuclear cells is found. Many of these unquestionably never proceed further, and represent the abortive group of cases. In the preparalytic stage the diagnosis need not be very elusive if one finds muscle tenderness, unequal deep reflexes (hyperactive at first and later diminished or lost), and considerable back rigidity with mild neck stiffness. In some instances the clinical picture is very confusing and a definite diagnosis cannot be made with any assurance. Establishing the diagnosis of poliomyelitis in the paralytic stage should be quite a simple matter and need not be discussed any further.

The prognosis in poliomyelitis must be given with caution, for neither the extent of paralysis or degree of subsequent recovery can be predicted with any degree of accuracy. The mortality varies greatly with epidemics, being as high as 25 per cent in some and as low as 6 per cent in others. Residual weakness persists in 25 to 50 per cent of cases. Nonparalytic forms of the disease are common and a large number demonstrate a slight weakness that rapidly disappears. The spinal fluid is of no prognostic value, but it is generally recognized that the severer infections have higher cell counts. Respiratory paralysis, hoarseness and dysphagia, rapidly advancing extensive paralysis, and circulatory collapse are ominous signs. Bladder dysfunction is temporary. When death occurs it is usually due to respiratory failure, extensive encephalitis with circulatory collapse, or intercurrent pulmonary infection.

The control of poliomyelitis during epidemics is very difficult. Prevention of the disease by quarantine is ineffective. Many

normal persons harbor the virus in the nasopharynx and act as carriers, spreading the infection to the susceptible group of the population. Because of this uncontrollable factor, attending theaters, concerts, and other public places should be strictly prohibited. This rule applies especially to children. There is no need for a mother to take her child downtown for shopping purposes or a tour of inspection when poliomyelitis is rampant. Schools should preferably be closed and public meetings discouraged. Only by applying such drastic measures can the spread be adequately controlled.

There is as yet no specific prophylactic measure that will give definite protection, active or passive, against poliomyelitis. Convalescent serum or immune horse serum may be of some value if given in large enough doses to an individual exposed to the disease. The intramuscular injection of 10 to 20 c.c. of serum is hardly sufficient. If the dose is to be gauged by the results obtained in monkeys, at least 2 c.c. of serum for every pound of body weight should be given as soon after exposure as possible. Such a large quantity would have to be administered intravenously. If serum is not available, whole blood may be used as a transfusion. There are some who believe that whole blood taken from convalescent cases or normal healthy adults, who live in the city, may even be better than convalescent serum. The nasal sprays so largely publicized have not lived up to expectations. In a large series of cases with adequate controls, studied during the recent Toronto epidemic, the incidence of poliomyelitis in those given the nasal sprays by expert rhinologists was not appreciably less than in the group not receiving it. It has been recommended that immune serum be used intranasally, and this may be effective in neutralizing the virus at its supposed portal of entry. All these methods are aimed to produce a passive immunity which at most does not last longer than ten days.

Active immunity against the disease has been accomplished in monkeys with a fair degree of success by both Brodie and Kolmer, each one using his own respective vaccine. Although these vaccines have been used on several thousand children, the results obtained are indefinite and not conclusive. Furthermore, their usage is not wholly void of danger, a number of cases

of paralysis following their use having been reported, with a few deaths, although it seems that Brodie's vaccine has been relatively harmless. More work needs to be done before vaccine immunization for poliomyelitis can be universally recommended.

Opinions regarding therapy of the acute stage of poliomyelitis differ. Considerable controversy exists as to whether or not immune serum or blood transfusions are of any value. Theoretically, it would seem that once the virus becomes fixed to the nerve cells, no amount of serum can have any effect upon it. Reports from a number of good clinics on the relative value of serum in poliomyelitis add support to this theory. In other equally good clinics favorable results were obtained, especially when it was used in the early preparalytic stage in large doses. At Ann Arbor, during the 1931 epidemic, eighty cases of poliomyelitis were observed in the preparalytic stage at the University Hospital. All of these received blood transfusions as soon after admission as possible, along with hypertonic glucose solution intravenously. Some were also given convalescent serum intramuscularly. Not one patient in this group died. Only one developed paralysis, which subsequently cleared up. This evidence is not conclusively in favor of immunotherapy, for many recover completely without any serum treatment. Nonetheless, our own experience and those of others which have been equally encouraging have convinced us that blood transfusions or serums, if given early and in sufficiently large amounts, are definitely beneficial.

Daily intravenous injection of hypertonic solutions, especially sucrose, is recommended as long as the muscle pain persists. This will help to relieve the edema and congestion around the motor cells and thus hasten their recovery. Striking clinical improvement has been observed following the injection of 100 to 150 c.c. of 20 to 40 per cent solution of glucose (sucrose not being available at that time) with relief of muscle pain and almost spectacular return of muscle function.

Repeated lumbar punctures serve no particularly useful function. They may do much harm by increasing the intracerebral

congestion, as a result of decreasing the extracerebral pressure through spinal-fluid drainage. It is well to remember that under no circumstances should medication or serum be given intrathecally.

Bulbar poliomyelitis requires special nursing care. The difficulty in swallowing necessitates feeding by gavage. By raising the foot of the bed and placing the patient in a prone position, the secretions from the nose and throat can drain out, preventing asphyxia or aspiration pneumonia. The pharynx must be kept clear at all times and tracheotomy may be necessary to lessen the danger of asphyxia from aspiration. Atropine is contraindicated, and morphine, because of its tendency to increase the intracranial pressure, is not recommended.

The Drinker respirator is reserved for those with respiratory paralysis who are markedly dyspneic and cyanotic. It is of little value in respiratory paralysis of central origin.

Special attention to the muscular system is of the utmost importance. Weakened or paralyzed muscles should be placed at physiological rest and physiotherapy instituted as soon as the deep tenderness subsides. The coöperation of a good orthopedist is indispensable if the best results are to be obtained. Those who remain paralyzed can be greatly helped by muscle transplantation and surgery of the sympathetic nervous system.

As concluding remarks, certain important points deserve special stress:

1. The seriousness of poliomyelitis is overemphasized. Infantile paralysis is a misnomer and should be discarded from medical terminology.
2. The incidence of the disease even in severe epidemics is quite low.
3. A large number of patients never develop paralysis and many others show considerable return of muscle power.
4. A diagnosis of poliomyelitis in the preparalytic stage can only be made after a careful evaluation of the clinical and laboratory findings and not on the examination of the spinal fluid alone.
5. Serum and vaccine therapy still hold hope for the future conquest of the disease.

A SURVEY OF SYPHILIS IN OAKLAND COUNTY FOR 1938

The Committee on Syphilis of the Oakland County Medical Society

HAROLD R. ROEHM, M.D., Chairman, C. H. BENNING, M.D., EVERETT
BRADLEY, M.D., E. E. HAMMONDS, M.D., C. A. NEAFIE, M.D.,
and P. V. WAGLEY, M.D.

An industrial survey was made by collecting the available data on cases of syphilis found in routine blood tests on industrial workers in Oakland County in 1938. The incidence was 3.1 per cent in 11,737 individuals, indicating that our estimated incidence of 4 per cent in our report last year was 0.9 per cent too high. This correction has been made in the calculation of percentages in the comparative figures of this year's survey.

The Committee has conducted a general survey of syphilis in the County for 1938, and has obtained the following information. There are at present in Oakland County 130 doctors of medicine, 23 osteopathic healers and 18 chiropractors engaged in private practice. None of the chiropractors treats syphilis. Reports were received from all but one of the remainder or 99.23 per cent as against 97.5 per cent in 1937. The doctor of medicine failing to report is not a member of this Society. Of the 130 doctors of medicine, 91 or 69.23 per cent have one or more cases under treatment. Of the 23 osteopaths, 10 or 43.48 per cent have one or more cases under treatment. The total number of cases reported in this survey from all sources was 1,061. 16 cases are not under treatment. Of the 1,045 cases under treatment, 559 or 53.49+ per cent were being treated by governmental agencies, i.e., the Oakland County Board of Health, the Oakland County Tuberculosis Sanatorium, the Oakland County Infirmary, and the Pontiac State Hospital, and 46.51 per cent were being treated by their private physicians. Of the 1,061 persons having syphilis 19 also had gonorrhea. Only 6 early infections with primary lesions were reported. Of the entire number of patients 174 or 16.39+ per cent were negroes and 887 or 83.51 per cent were white. There were 457 or 43.08+ per cent females and 604 or 56.92— per cent males.

An analysis of the average number of treatments per patient from all sources is illuminating. Because of inadequate information given in the reports, we were able to use only 981 of the 1,061 cases. The average number of treatments for 1938 per patient from all sources was 18.3 per cent. The breakdown of the sources follows. Average number of treatments for 1938 per patient by osteopaths was 7.08 per

cent; by governmental agencies 15.1 per cent; by doctors of medicine in private practice 23.3 per cent. The methods of treatment are reasonably satisfactory except that not enough arsenicals are being used. The average age of patients under treatment was approximately 35 years.

The classification of the 1,061 syphilitics was as follows:

Prenatal	5	0.47+%
Early	185	17.44+%
Latent	607	57.21+%
Late	209	19.69+%
Congenital	55	5.18+%
	1,061	99.99 %

The method of classification of these cases was exactly similar to that of last year and the method of survey was duplicated. Each report was given over the physician's signature. Under these circumstances, we believe that reasonably accurate conclusions may be drawn from a comparison of like statistics for the two years.

From information acquired we believe that an estimated population of 200,000 is more nearly correct for Oakland County than the figure of 250,000 used in the survey last year. We have used the corrected figure this year, and in the comparative table to follow the statistics of last year have been corrected according to this figure as has the incidence of syphilis as previously mentioned. With a population of 200,000 and an incidence of 3.1 per cent the expected number of syphilitics in the County would be 6,200. We know of 1,061 or 17.09 per cent of the expected number.

SURVEY OF SYPHILIS IN OAKLAND COUNTY

A comparative table of 1937 and 1938 follows:

	1937	1938
Number of cases of syphilis	722	1,061
Distribution		
Percentage of whites	84.91%	83.51%
Percentage of negroes	15.09%	16.39%
Percentage not under treatment	2.90%	1.55%
Treatment by Governmental agencies	46.12%	53.49%
Treatment by private physicians	53.88%	46.51%
Percentage of M.D.s. treating syphilis	64.88%	69.23%
Percentage of osteopaths treating syphilis	23.80%	43.47%
Classification of cases		
Prenatal	2.22%	0.47%
Early	19.14%	17.44+%
Latent	51.11%	57.21+%
Late	28.86%	19.69+%
Congenital	3.74%	5.18+%
Percentage of reported cases in relation to expected incidence	11.62%	17.09 %

Conclusions

1. The number of cases of syphilis reported in the survey has increased in 1938 compared with 1937. We believe this is due to the growing practice of taking blood tests of employees by industrial corporations.

2. The percentage of distribution of the cases among white and negroes is in such close accord for 1937 and 1938 that we feel this offers a good check on the figures of the survey, since there has been no marked racial shift in the past year. We believe the comparative percentages in the tables of classification of syphilis for the two years also agree closely enough to indicate that this method of gathering data has value.

3. The percentage of cases of syphilis known but not under treatment has dropped 50 per cent since 1937 which indicates to us that educational publicity has reduced delinquency, although this remains one of the greatest problems of public health.

4. There has been a marked shift in the treatment of syphilis away from the private practitioners and toward the free governmental agencies. Treatment by such agencies increased in 1938 over 1937 by 7.37 per cent and the private physicians treated just that fewer cases. This trend away from the private physician is due we feel to the lack of interest of the doctors of medicine shown in their unwillingness to assume the responsibility for the treatment of indigent syphilitics. Most important is the necessity for the physician to

keep his fees within the limits of the ability of the patient to pay.

5. One encouraging factor is found in the fact that 4 per cent more doctors of medicine treated syphilis in 1938 as compared with 1937, although each physician treated on the average fewer patients.

6. It is of interest to note that 19.67 per cent more osteopaths or almost double the number in 1937 were treating syphilis in 1938, but the treatments were the least adequate of any group.

7. The same situation persists in 1938 as in 1937, in that the number of cases of prenatal syphilis or syphilis in pregnant women is ridiculously low, but it is expected that this condition will be corrected by the new law which requires a blood test for syphilis on all pregnant women.

8. It should be noted that only one case of extragenital primary lesion was reported. Since extragenital lesions are usually quite common, this suggests that some are being missed.

9. The Committee feels that the surveys carried out have been of distinct value in demonstrating the inadequacy of our present case finding methods as shown by the average age of patients under treatment, the number of late and latent cases, and by the fact that only 17.09 per cent of the expected number of cases are under treatment. It calls to the attention of the physicians of the county the fact that a high percentage of the syphilitics in the county may be escaping either diagnosis or treatment or both.

10. The statistics show that the number of treatments per patient by the Doctor of Medicine in private practice exceed those of the next nearest group by almost 65 per cent. The patients of these physicians are thus receiving more adequate care. The reasons for this are partly due to the better class of patient with whom there is more coöperation and less delinquency, but the Committee believes that another reason is that the best treatment agency is the Doctor of Medicine in private practice. It must be recorded, however, that treatment can be improved in all groups.

11. The necessity for case finding, adequate treatment, and follow up still exists.

Recommendations

1. We recommend that a survey of syphilis in Oakland County such as has been made be repeated from time to time in order to check the effects of such programs as may be developed in the future by private or public health agencies.

2. We recommend to the Board of Supervisors of Oakland County that they pay the salary of a full time worker to follow up syphilitics delinquent in their treatment. We feel that it would be helpful to have a printed delinquent form which would be used by the physician, either private or of a governmental agency, to advise such a worker of delinquents.

3. We feel that a great effort should be made on the part of the County Medical Society to interest a group of 5 to 10 members in the problem of the treatment of indigent syphilitics. Such a group might take over or work with the established free

agencies now treating syphilitics, with benefit to both the patient and the physician.

4. There is a need for a continued program of properly directed publicity in regard to the diagnosis and treatment of syphilis, but this should not be started until the physicians are ready to assume the responsibility of treating every individual who responds to such publicity.

5. We recommend that an adequate treatment set up for indigents be established through the medium of the private physicians of the county on a reasonable fee basis.

6. The necessity for a blood test for syphilis as part of the examination of every patient still needs emphasizing. We urge all governmental agencies, since they now play the rôle of the greatest employers of labor, to have routine tests for syphilis done on all employees of the P.W.A., W.P.A., et cetera, and on all persons obtaining any form of relief.

OUR CHANGING MEDICAL SERVICE*

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"Our Changing Medical Service" is more than the title of my short talk today. It may well be the autobiography of every doctor of medicine in this room, every physician in the Upper Peninsula, every practitioner in the land.

Time does not permit nor would I dare to reminisce before this audience of young men, but I like to recall the rugged, independent type of medical practice we older men experienced when we first started our rounds with the old grey mare, and to reflect on the toilsome but ever-satisfying service which characterized our free action, up to just a few long years ago. This was in the days before "rugged individualism" came under the ban of the "pied piper of the air, fatuously fluting in ragtime." Now our very status as health defenders of the hearth and home is being challenged by those, who, having no knowledge of our art, presume to a wisdom beyond that of men who are giving their lives in full time devotion to the halt, the lame and the blind.

Of course, all of us realize that the science of medicine has progressed very rapidly in these ten or fifteen years or more; that the technics of medical service have changed mightily, and we are glad of these improvements and the way in which our Michigan

physicians have kept in the van of progress. But, do all of us apprehend clearly the changes in the practice of medicine, in the distribution of medical service to the people, these changes that are in operation now, and the revolutionary alterations and substitutions for medicine which are being loudly recommended and vigorously lobbied, in and out of the national capitol?

Before 1929, that sad year of inverse fortunes, the medical profession performed its priestly service to the poor, out of the largess of its bounty. The State was delighted to throw its burdens of medical service on the willing physicians. After that great financial squeeze play, the poor became so great in multitude and the multitude of phy-

*President's Address presented at the annual meeting of the Upper Peninsula Medical Society, Escanaba, Michigan, August 23, 1939.

sicians became so poor, that the State was forced, reluctantly to be sure, to take over in part its responsibility of furnishing indigents with necessary medical care. To many physicians this represented the first great change in medical service, as they had overlooked, because it did not affect their private practices too closely, the socialization of medicine in the State care of the insane, the tuberculous and the crippled and afflicted children.

That the care of the indigent was and is shamefully inadequate is a fact so obvious that every newspaper in our State has been filled with protests against the drastic cut in the appropriation for the care of the crippled and afflicted children, and against the woefully insufficient monies to buy the necessities in food, clothing, shelter, fuel and medical care for those on Michigan's welfare rolls. Our own experience shows that Government, yes that very same Government which boasted, "We planned it that way," has been remarkably penurious in providing medical care for those on the WPA rolls, or the blind or dependent children, or the decrepit recipients of old age assistance, who above all others, require generous amounts of medical service.

In the face of this deplorable situation, it is most startling and incongruous to read the plans of the various handsome young men in Washington, who are endeavoring to make their name and fame by concentrating their efforts on putting over a great new national health program, including public health work, hospital building and health insurance! "Absurd," you say? Not at all! These modern glamor-boys are deadly serious in their emulation of Bismarck and Lloyd George, and therefore the whole scheme is dangerous—perilous to the health of the people and to the thread of Democracy in our land. The plan of socialized medicine known as Senator Wagner's National Health Program has not its roots in the democratic principles which have made this country great. The answer to the nation's health needs does not lie in a Fascistic philosophy which, like poison gas, spreads and injures and kills all and everything in its ever-widening path.

Ambition should not be fed on the health of our people. Further, Government must

assume its rightful responsibility for the care of those on the welfare rolls but there must be a line beyond which Government must not step without usurping personal responsibility.

Government's first problem in medical service is to provide adequate care to those on relief. Let it take care of our indigents and do a good job at that before it looks about for other worlds to conquer. Let it realize that the burden of civilization can never be made too great or civilization will decay.

Government's second consideration is to permit the medical profession freedom to till its own field. Medical problems will be best solved by medical practitioners, not by ambitious, if well informed politicians who never circumcized a young man nor catheterized an old one. The medical problems of the great border line group and of the middle class are not unknown to the profession. The Michigan State Medical Society and its far-sighted leaders long ago instituted the movement which today has developed into the Volunteer Medical Service plan, which I hope will be approved by our House of Delegates next month in Grand Rapids, so that contracts for group health service may be offered to the public before the winter's snows.

Our changing medical service can and must be changed only by the doctor himself, through his medical society, and not through Government intervention. Our patients want humanitarianism from their doctors, not red tape. We practitioners want independence, even though it means greater toil. We want to be free from bureaucratic control and dictation in order that we may continue to go our untrammelled way in adding our mite to the beneficent influence which our profession has ever contributed to the upward progress of humanity, in allaying the ills to which mankind is heir. With the would-be law makers visibly and noisily flirting with chicanery, modern medicine will take that too in its stride, because the ancient Biblical adage is as new as tomorrow, "By their fruits ye shall know them."

The final decision rests with our patients. We fear not the verdict.

CARBON MONOXIDE POISONING*

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WM. D. McNALLY

Carbon monoxide is a modern poison with an historical record dating back twenty-five centuries. With the kindling of the first fire man came in contact with this, the most subtle of poisons. The cave man in using smoke to destroy his enemies unknowingly made use of this powerful poison. Aristotle, nearly 300 years B. C., observed that "men suffer from heaviness of the head and often die from coal gas." Hannibal (247-183 B. C.) put the inhabitants of Nuceria to death by carbon monoxide (coal vapor). Since that time many accidental deaths, suicides, and murders have been caused by this gas. With the more

extended use of natural gas and electricity as sources of light and heat, deaths by this poison have gradually decreased. Deaths due to inhalation of the exhaust gases of internal combustion engines (principally automobiles) have been on the increase. In 1928 in Cook County, Illinois, I found sixty-three deaths due to auto gas, in a six-year period.²² While in 1935 there were seventy-four deaths due to carbon monoxide, of which forty-six were due to auto gas; in 1937, thirty-nine out of sixty-three deaths were due to auto gas, and in 1938 of fifty-four deaths, twenty-two were due to auto gas.

This gas is not readily detectable by sense of smell or taste, because when pure it is tasteless, odorless, colorless, nearly insoluble in water. Since carbon monoxide is usually found mixed with other gases which are recognized by sight or smell, its probable occurrence is indicated when these gases are detected.

The density compared to air is 0.967. It can be compressed into a liquid and a solid. It burns with a blue flame, two volumes of carbon monoxide uniting with one volume of oxygen to form two volumes of carbon dioxide.

Carbon monoxide is produced by the incomplete combustion of organic matter. It is produced during welding processes, at the electrodes, or from the charges of electric furnaces. In electric furnaces having limestone linings the carbon dioxide is reduced to carbon monoxide at the heated electrodes. The most common sources of carbon monoxide, with the exception of its marked formation during a severe lightning

storm, are stoves, grates, salamanders, domestic and industrial furnaces, distillation of oil, gas engines, fumes from explosions, burning x-ray films, smouldering ashes, and mine, coal, and artificial gases. It is formed whenever incomplete combustion of carbon occurs, such as flames on besooted surfaces and low burning oil lamps. The smoke of cigarettes, cigars and pipes contains this poisonous gas.

Enormous quantities of carbon monoxide are produced daily in the manufacture of illuminating gas, producer gas and water gas. In the city of Chicago during 1938 there were about 3,700 miles of pipe used for the transportation of over 200,000,000 cubic feet of gas per day, having the average composition of 2.5 to 3 per cent carbon monoxide. The proportion of carbon monoxide differs greatly in domestic and industrial gases, varying between 4 per cent and 30 per cent. In coal gas there is from 4 per cent to 10 per cent; in water gas 30 per cent; and from 20 per cent to 30 per cent in producer gas. The exhaust of an automobile may have from 1.5 per cent to 6.5 per cent of carbon monoxide.

Natural gas is practically odorless and is free from carbon monoxide. In systems using natural gas only, odoriferous substances such as ethyl mercaptan are added for detection of leaks in distributing systems. In some cities water-gas is mixed with the natural gas so that the average composition varies from 2.5 to 3 per cent of carbon monoxide.

Van Deventer³⁴ has found that about five per cent of the automobiles that he tested on the highways had dangerous concentrations (0.03 per cent or more) of carbon

*Read at the Seventy-third Annual Meeting of the Michigan State Medical Society, Detroit, September 21, 1938.

monoxide in the air that the driver breathes; "dangerous concentrations," being those that, breathed for many hours, may produce dizziness, collapse, and even unconsciousness and death.

Forbes¹⁰ and associates found that none of their subjects were affected whose blood was 25 per cent saturated, and that their performances in simple tests of reaction times, binocular vision, coördination of the hand and eye, etc., were unaffected by breathing carbon monoxide until their blood was 30 per cent or more saturated. At 45 per cent saturation their performance was only slightly impaired. Subjectively, they felt normal at 30 per cent saturation or less but at 45 per cent both appeared and felt unequal to driving a car because unable to think of many things at once. The pulse, respiration and blood sugar were unchanged up to 30 per cent saturation.

In a death case at Oshkosh, Wisconsin, involving inhalation of exhaust gases, I submitted six subjects to the inhalation of the exhaust gases at various distances from 6 to 15 feet for a period of fifteen minutes. All the doors and windows of this commercial garage were closed. It was alleged in this case that a man who was repairing a generator on his car which consumed about fifteen minutes of his time, inhaled gas from the exhaust of another car, which was being tested in the garage; that after the repair work on his car was completed he drove the car home, dying about one and one-half hours later with what appeared to be a coronary occlusion. Since an autopsy was not permitted it was necessary to perform experiments in this garage under the same conditions under which he worked, and which proved that only one of six subjects developed a 30 per cent saturation. This individual complained of a headache for several hours afterward. The others were unaffected. The blood pressure and pulse of all subjects were unchanged. Wilson³⁶ and his colleagues demonstrated carbon monoxide in the blood of fourteen traffic policemen, in six of whom the amount ran from 20 per cent to 30 per cent carbon monoxide hemoglobin. Owens²⁸ states that the exhaust from heavy oil engines, such as Diesel engines, contains a lower proportion of carbon monoxide than that coming from petrol engines. The safe limit for carbon monoxide in the air is given by Haldane,¹⁴ who studied conditions in the

London Underground Railway, as 0.01 per cent for continuous exposure. On the other hand, Henderson¹⁵ and his colleagues allowed as much as 0.04 per cent, since it was supposed that no one could remain in that atmosphere for more than three-quarters of an hour, and that in that time, and at such a concentration of carbon monoxide, would suffer only a frontal headache. Bloomfield and Isbell⁵ reported that the average of 141 tests made in city streets at parking hours of traffic showed a contamination of 0.8 part of carbon monoxide per 10,000 parts of air.

Brondum and Ray⁷ from their experimental work came to the conclusion that in cases of acute poisoning by motor exhaust fumes, where both carbon monoxide and gasoline vapors are present, the toxic effects of carbon monoxide are probably not enhanced by the gasoline vapor. The carbon monoxide, being much more toxic, would react before the gasoline would have an opportunity to show its toxic symptoms. Leaks in the exhaust pipes of motors in pleasure boats have been responsible for numerous cases of illness. Since many cases of illness have been reported from inhalation of gases in automobiles on long trips, it may be of interest to know where the carbon monoxide might come from. (Table I).

TABLE I. CRANK CASE GAS ANALYSIS

1. From crank case, motor racing:
 - Carbon monoxide 0.9%, or 90 parts per 10,000 of air
 - Carbon dioxide . . 2.9%, or 290 parts per 10,000 of air
 - Oxygen . . . 16.5%, or 1650 parts per 10,000 of air
2. From crank case, motor idling:
 - Carbon monoxide 1.4%, or 140 parts per 10,000 of air
 - Carbon dioxide . . 4.0%, or 400 parts per 10,000 of air
 - Oxygen . . . 15.1%, or 1510 parts per 10,000 of air
3. From exhaust, no dilution:
 - Carbon monoxide 4.0%, or 400 parts per 10,000 of air
 - Carbon dioxide . . 12.1%, or 1210 parts per 10,000 of air
 - Oxygen . . . 0.2%, or 20 parts per 10,000 of air

The average composition of the exhaust gas by volume of twenty-three cars in this country is shown in Table II.

TABLE II

Carbon dioxide	8.6
Oxygen	2.3
Carbon monoxide	6.3
Methane	0.9
Hydrogen	3.0
Nitrogen	78.6

With the increased use of natural gas, the number of carbon monoxide asphyxiations has been markedly decreased in recent years as shown in Table III. The more extended use of electricity as means of illumination and fuel is also a factor in this decrease.

TABLE III. DEATHS DUE TO CARBON MONOXIDE POISONING IN COOK COUNTY

1917	1918	1919	1920	1921	1922	1923	1924
470	479	518	386	237	214	361	412
1925	1926	1927	1928	1929	1930	1931	1932
320	403	375	398	237	310	323	188
1933	1934	1935	1936	1937	1938		
128	143	*74	80	**63	***54		

*(Of this 74, 46 were due to auto gas).

** (Of this 63, 39 were due to auto gas).

*** (Of this 54, 22 were due to auto gas.)

Carbon monoxide may be freely respired, its presence in air is not manifested by either irritation to the air passages or by its affecting the sense of smell as is noted with sulphur dioxide gas used in mechanical refrigeration. However, the moment carbon monoxide comes in contact with the blood, by diffusion, it unites with the red pigment of the blood corpuscles, forming a definite compound, carbon monoxide hemoglobin (HbCO). The corpuscles are not dead. All they need is oxygen under sufficient tension to displace the carbon monoxide.

Death in cases of carbon monoxide asphyxia is due to failure of respiration of the nature of a fatal apnea vera. Haggard further states that the lack of oxygen resulting from the formation of CO hemoglobin induces excessive breathing, which in turn results in an abnormal loss of carbon dioxide followed by failure of respiration. The increasing anoxemia from this cause speedily results in the development of heart block through its various stages. I believe there is a toxic factor in carbon monoxide poisoning besides that of anoxemia. Taking a parallel situation where the hemoglobin is reduced 30 per cent or more, as in the anemias, headaches are not present, whereas in carbon monoxide intoxication a similar reduction of hemoglobin causes a headache.

Most of the interest in carbon monoxide poisoning in the past had been centered in massive doses where death occurred suddenly. The neurological side of those recovering from an intoxication has been neglected. However, in the last few years

greater interest has been taken in this phase, and the literature now contains more frequent references to the neuropathology.

The neurological conditions which have been reported more often following carbon monoxide poisoning are: multiple neuritis, paralysis agitans, disseminated sclerosis and dementia. Recovery follows after a period of four months to a year and a half in the majority of cases.

Hufner¹⁹ found that 1 gm. of carbon monoxide hemoglobin contains 1.338 c.c. of carbon monoxide, computed at 0°C. and 760 mm. pressure. The oxygen absorbed from the air is normally taken up by the blood in the form of loose chemical combination with the red coloring matter (hemoglobin) of the corpuscles and in this form it is carried to the tissues in which it is used. Oxygen and carbon monoxide combine chemically with hemoglobin in equal molecular proportions, and, therefore, in equal volumes, the oxygen combination readily liberating its oxygen, while the carbon monoxide is relatively stable.

The blue flame at the surface of the fire in grates and blast furnaces shows the presence of carbon monoxide. Much escapes unburned. In furnaces with forced drafts the blue flame is often seen at the top burner in the superheaters of the air supply. It is, therefore, a constant constituent of the products of combustion of carbonaceous materials, and, while the poisonous action of charcoal, coke, and coal vapors is in part due to carbon dioxide, it is due mainly to this poisonous gas. Quantities of this gas accumulate above the fire in hot air furnaces and stoves. So much, indeed, that on opening the door the inrush of air will form an explosive mixture which, igniting, may produce serious accidents. The common construction of dampers is that they shall be loose enough to allow a constant draft to the chimney. Notwithstanding this, it frequently happens that a down draft fills the room with the products of combustion to a poisonous extent. The presence of any carbon monoxide in the atmosphere is due either to the faulty construction of the furnace, or to the action of the heated plates on the organic dust with which they are generally covered. Notwithstanding all attempts to render furnaces gas-tight, their lacking of this is seen in the rapid tarnishing of silverware as soon as the furnace is lighted; by the occasional

escape of furnace gas, detectable by its odor, or of smoke, which pervades the home. The general malaise and headaches during the winter months are undoubtedly due in many instances to the presence of this gas.

Carbon monoxide hemoglobin may be found in the blood of human beings up to twelve hours after removal from the source of exposure. In exceptional cases it may be found for longer periods of time. Out of forty-three consecutive gas cases received at the Cook County Hospital of Chicago, 34 per cent were examined within one-half hour from the time they were removed from the source of exposure, carbon monoxide being found in all of these; in 30 per cent the exact time was not known, but was greater than one-half hour, 27 per cent being positive and 3 per cent negative. Twenty to forty minutes elapsed in 14 per cent, 12 per cent gave positive tests and 2 per cent negative; 10 per cent were examined in three hours, all being positive, in another 10 per cent five hours elapsed, all were positive, and in 2 per cent after twelve hours all were positive.

Occasionally the question arises as to whether the carbon monoxide found in a dead body was absorbed from the atmosphere. In the experiments of Strassmann and Schulz,^{33,35} it was demonstrated that carbon monoxide may penetrate, by diffusion, all parts of the cadaver, with sufficiently long exposures in air containing this gas.

Lethal Dose.—From experimental work it would appear that about 0.8 gm. (twelve grains) of carbon monoxide is fatal to a man of 70 kilos (154 lbs.). However, extremely small portions when breathed produce unmistakable evidence of poisoning. According to Gruber, 0.02 per cent is the limit of toxicity, while at 0.05 per cent symptoms were clearly observable.¹²

Henderson and Haggard,¹⁶ from their studies, have arrived at a standard for calculating the toxic action of carbon monoxide which refers to the concentration of the gas and the time of exposure to it. When the time of exposure in hours multiplied by the concentration of CO in parts per 10,000 of air equals three, there is no perceptible physiologic effect; when it equals six, there is a just perceptible effect; when it equals nine, headache and nausea are induced; and when it equals fifteen or more the conditions are dangerous to life.

Carbon monoxide poisoning may be of interest in civil cases, for instance, under conditions in which death is due to chronic poisoning and the results amount to criminal negligence on the part of another.

One of my early cases, the first to be tried in a higher court in Illinois, illustrates this point. In the estate of Catchman Olsen vs. City of Chicago, the widow was given a verdict of \$3,500, the death of Olsen having been proved as due to a leaky gas pipe in one of the repair shops of the city. When an insurance policy is involved it is of utmost importance that the presence of carbon monoxide be shown by chemical examinations, and to prove whether the case is a murder, a suicide, or an accident, as a policy may be voided in the case of suicide.

Symptoms.—The diagnosis of carbon monoxide is often very easy, sometimes difficult and never positive unless a chemical examination of the blood has been made.²⁵ The symptoms may simulate many other conditions. The reason for this is chiefly in the rate of absorption and the extent of the combination of the hemoglobin with the gas. When the volume of breathing is increased by muscular exertion the absorption of gas is proportionally increased. The smaller or younger the individual the quicker the saturation of the blood by carbon monoxide. In the resting stage the volume of breathing varies between individuals as a function of the surface area of their bodies. Small individuals succumb to carbon monoxide more rapidly than large individuals, for the volume of their respiration is greater in relation to the volume of their blood.

The symptoms may be classified under several groups:

1. The simple anoxemia where an overwhelming dose of the gas has been taken causing basal or frontal headaches, faintness, dizziness, coma, tremors, ringing in the ears, nausea, vomiting, and muscular weakness.
2. Disturbances of the central nervous system, in those who have recovered from acute poisoning — hyperesthesia, paresis, hemiplegia, polyneuritis, and psychosis.
3. Disturbance of the hematopoietic system in the form of severe anemias or a hypercythemia.
4. General diminution of the resistance of the body with resulting activation of an

old tuberculous process or other infectious processes, the person's resistance being so lowered that he may die of pneumonia.

5. Cardio-vascular syndromes, coronary thrombosis or coronary occlusion.

The onset of symptoms may be sudden, but usually there are warning sensations, such as headache, throbbing of the temples, ringing in the ears, faintness, dizziness, and vomiting. The face becomes red, and there is loss of memory, vertigo, fainting, anesthesia, and loss of all spontaneous power of movement. The heart action is at first violent, then weak, slow, and arrested. The body temperature is lowered.

Recovery is sometimes rapid; however, there is a slow return to consciousness, with a more or less prolonged headache, nausea, and weakness. If the patient does not respond to oxygen and carbon dioxide treatment within a half hour, the prognosis is very poor. The paralysis and anesthesia begin in the lower extremities and rise to the trunk. The loss of power and sensibility is frequently shown by the severe burns received by a person falling on a gas or other stove or a brazier. Loss of consciousness is often sudden. At other times there is a slowly increasing drowsiness. Pneumonia not infrequently follows the intoxication.

Chronic carbon monoxide poisoning may result from being in a constantly contaminated atmosphere. The symptoms are described as an alteration in the digestion, diminished vigor, gray color of the skin, coated tongue, loss of memory, diminution of the psychic powers, and occasional convulsions. Killick²⁰ from human experiments found that acclimatization occurs to a certain extent inasmuch as symptoms of poisoning are lessened during successive exposures to the same concentration of carbon monoxide.

The symptoms resulting from inhalation of carbon monoxide depend upon the extent of combination of the hemoglobin with the gas. Table IV gives the average physiological response to the various percentages of saturation of the hemoglobin with carbon monoxide.

The author found glycosuria in about 20 per cent of the cases of carbon monoxide poisoning admitted to the Cook County Hospital. This condition is not peculiar to the action of carbon monoxide, but follows asphyxia from other causes, being the result

of the pouring out of adrenalin into the circulation under the stimulus of asphyxia with resultant increased supply of blood sugar from the liver under the stimulus of the adrenalin. In the acute stage, diagnoses of food poisoning, strychnine poisoning, diabetes, and alcoholism have been made in cases of carbon monoxide poisoning. The symptoms are so varied that a physician is reminded of diseases of the brain, spinal cord, lungs, kidneys, liver and skin.

Treatment.—The person must be removed from the poisonous atmosphere and into the fresh air and artificial respiration introduced as soon as possible. Ten per cent carbon dioxide and 90 per cent oxygen is more effectual than the 5 per cent mixture of carbon dioxide.

Postmortem Appearances.—Poisoning by a small amount of carbon monoxide may produce very few changes, or if the patient lives for a number of hours after exposure, only a careful examination of the blood will reveal the presence of the gas. The skin usually has a cherry-red color. The surfaces of the dependent parts of the body are of deeper red than the other parts. The most characteristic finding is the bright cherry-red blood, usually fluid and coagulating slowly, present in the arteries, veins, and all of the tissues. Hemorrhages may be found in the pleural cavities, also in the gastric and intestinal mucosa, and in the leptomeninges under conditions difficult to explain, except under carbon monoxide poisoning.²⁵ A very characteristic change in prolonged carbon monoxide poisoning is the occurrence of punctiform hemorrhages and softening in the cortex and central nuclei of the brain, notably in the two internal segments of the lenticular nucleus. Carbon monoxide may cause hemorrhage and necrotic myositis. The kidneys may show fatty degeneration and necrosis in the convoluted tubules. Where life has been prolonged, the skin may show herpes, blebs, and pemphigus followed by gangrene.

Sequelæ of Carbon Monoxide Poisoning.—The sequelæ of severe gassing are usually abnormalities of spinal function, and the anatomical changes are found chiefly in the central nervous system. The lesions in the central nervous system are primarily vascular, with degenerative changes caused by lack of nutrition.

Schillito³⁰ examined the records of seven state institutions that serve the New York

city area, and found that thirty-nine patients were poisoned during a ten-year period, 1925-1935, while four were poisoned either before or after this period. In the same period there were more than 21,000 carbon monoxide exposures in the same area. There were thirty-nine cases of psychoses due to carbon monoxide poisoning. The ratio of carbon monoxide psychoses to other psychoses gives the incidence percentage of 0.05 per cent or roughly one carbon monoxide case to 2,000 other psychoses.

A psychosis, most usually temporary in character, was the most common manifestation of the after-effects of carbon monoxide poisoning. It is marked by confusion and bewilderment, combined with loss of memory. Events occurring at the time of the accident were forgotten.

Amnesia in some form was the most regular feature of the psychosis following carbon monoxide poisoning. It usually consists of defects in memory. Nervous sequelæ consisted of signs varying from slightly increased deep reflexes to well advanced Parkinsonism. Sensory disturbances, such as skin anesthesia and peripheral motor neuritis were also encountered. All of these cases will show improvement, but the final result depends upon the degree of the initial damage.

The reason for the various neurological symptoms following carbon monoxide poisoning can be better understood after studying the neuropathology produced in dogs by acute and chronic poisoning of the animals; from the circulatory changes characterized by dilatation, stasis, perivascular hemorrhages, and edema in acute cases—to degenerative changes in the nervous system.³⁷

Carbon monoxide may be determined by chemical means or by the use of the microspectroscope. Chemical tests include the use of tannic acid, pyro-tannic acid, hydrogen sulphide, and sodium hydroxide, all of which may be made in a physician's office without any unusual laboratory apparatus. When blood is added to diluted hydrogen sulphide water drop by drop, it produces a bright red precipitate when carbon monoxide is present, otherwise a bright green. When blood is diluted one part to four with water, an equal quantity, say 2 c.c. of the unknown, being added to 2 c.c. of 1 per cent tannic acid solution freshly made and allowed to stand at least twelve hours, the blood will

be of light red to deep carmine-red color if carbon monoxide is present, while the normal blood appears gray. When an equal quantity of 10 c.c. lead acetate is added with diluted blood, a carmine-red color is produced, while normal blood takes on a gray color. A number of quantitative methods for the determination of carbon monoxide in blood and air are available, but require considerable laboratory apparatus.

Guillain and Hereboulat¹³ reported a case of syringomyelia caused four years previously by carbon monoxide intoxication. In 1935 the author saw a truck driver poisoned by exhaust gases that entered the cab of his car. He was discharged after one week as cured of carbon monoxide poisoning. Later, he developed periods of amnesia accompanied by sensory and motor disturbances, resembling those of a polyneuritis.

The patient complained of periods of dizziness and unsteadiness of gait and inability to drive for a year later. A number of cases that I have seen developed symptoms similar to that of Korsakoff's syndrome—there was a defect of recording of current events with mental confusion, and the symptoms were usually greatly exaggerated. Pains in one or both legs were complained of and occasionally signs of polyneuritis were noted. These usually clear up in the course of a few months.

Lipf²¹ reported a case of a woman twenty-three years of age, who attempted suicide with illuminating gas. The patient became apathetic and disoriented. Paralysis of both lower extremities developed. There were involuntary micturitions and defecations. The patient became gradually more unconscious and stuporous, and finally died. Autopsy showed a swelling of the spinal cord at the level of the twelfth thoracic segment. There was a perivascular round cell and leukocytic infiltration, and deposition of brownish pigmentation. The neurological symptoms were due to a local edema at the level of the spinal cord caused by the carbon monoxide intoxication.

The neurological phases of carbon monoxide poisoning are too extensive to be covered in a general paper of this nature. I am including references to several papers, which give in detail some of the points that I have covered.

I have seen cases of coronary occlusion in firemen, who, while working at a fire, in-

haled an excess of smoke, became sick, and died after returning to their stations. At the autopsy coronary occlusion was found. Myocardial involvement resulting from carbon monoxide poisoning is more common than is generally assumed. Coronary lesions due to carbon monoxide have been reported by many authors. Nagel²⁶ reported two of his own cases, and four from the literature. Strassman found hemorrhages in the heart. Hyperthyroidisms caused by carbon monoxide have been reported by Baader² and Schulze.³¹

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MASSIVE GANGRENE OF THE COLON SECONDARY TO ACUTE APPENDICITIS

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The following two cases are presented, and may be of interest because of massive character of pathology and rarity of occurrence, being a thrombotic process extending by continuity from an acutely inflamed appendix.

The diagnosis of gangrene, small or large, of cecum or large bowel, is usually not made pre-operatively because the clinical picture of appendicitis simulates the symptoms of gangrene: Secondly the patient in those instances where gangrene of any extent has been diagnosed, in the operating room, has usually been too ill to survive an extensive resection of the bowel. In other words, when gangrene involves more than the immediate area of the appendix permitting immediate resection, the prognosis is very poor.

The following two cases are reported as massive gangrene of the large bowel secondary to acute appendicitis:

Mr. H. H. was seen about 4 P. M. by Dr. J. Nicholson, January 14, 1935, with complaint of nausea and distress of two days' duration in the right lower quadrant of the abdomen. He found in a robust male, twenty-five years old, a temperature of 100 degrees F., with tenderness in the right lower quadrant and slight rigidity. Hospitalization for observance was advised.

The laboratory technician reported a white count of 13,680, red count of 4,600,000 and a hemoglobin 75 per cent.

The following morning, white cells numbered 13,000 with no marked improvement in symptoms or physical signs. Laparectomy was advised.

Under general anesthetic, through right rectus incision, the appendix was freed retroceally. It was bound down by old adhesions and was gangrenous. The head of the cecum and ileocecal valve were not involved, i.e., inflamed, no free fluid in abdominal cavity. The appendix was amputated, stump inverted and soft rubber dam, drain inserted into the retrocecal area. The incision was closed in layers. The patient returned to the ward in good condition and remained so until midnight when the pulse became rapid. Pulse 140; respiration 16—; temperature 104 degrees F., the patient stating "he felt good." At 6:20 A. M., pulse 135, respiration 12, the patient passed large liquid black stool with occasional flecks of clots. From then until 5:00 P. M.

he was annoyed by occasional cramps and two black liquid stools but again stated he felt fine.

Undecided as to the origin of the black stools, preparation for possible transfusion was made, but the white count obtaining 5,600, with hemoglobin 75 per cent, pulse rapidly rising, and temperature 106.4, it was concluded some factor other than hemorrhage was present.

The patient expired the following morning, January 16, 1935, with similar bloody fluid coming by mouth, per rectum and through the drainage area in the abdominal wall.

By professional courtesy, regional post mortem was done by enlarging the incision and the following pathologic condition found: Frothy sero-sanguineous exudate from nose and mouth; abdominal cavity contained about one quart of sero-sanguineous fluid black in color; cecum acid, ascending colon to the hepatic flexure and about 10 inches of ileum were black in color. Lumen of affected gut contained liquid black fluid. Mucous surfaces throughout the black portion were devoid of luster and when wiped dry were a dull yellow color.

Microscopic report by Dr. Wm. McGerman, Blodgett Memorial Hospital, reads as follows: "An intestinal mass about 9 inches in diameter showing an extensive inflammation. Sections show an extensive inflammation, necroses and gangrene. There is marked vascular thrombosis which has probably been secondary to a similar process in the appendix and, as sometimes happens, has involved the blood supply of lower cecum.

The second case is as follows:

Mr. R. D., male, aged 36, was seen November 13, 1936, at 3:00 P. M. in my office, complaining that during the past two days he had had some pain in the lower right quadrant, near the interior superior spine, passing across the abdomen; headache at times but neither vomiting nor nausea since onset. He had been attending to his work, peddling, with effort that day because of soreness in his abdomen.

The patient admitted frequent similar attacks of pain, associated at times with nausea and vomiting.

One brother died from appendicitis; a second brother survived appendectomy in 1921.

The patient looked sick, temperature 97, pulse 74. Examination of abdomen revealed tenderness on deep pressure over McBurney's point, Morrison's sign negative, Rovsing sign negative; pressure over lower pelvic area caused pain in the right flank.

Because the patient appeared ill out of all proportion to physical signs, a blood count was taken and a count of 9,050 white cells was obtained. Operation was advised but refused and the patient returned home.

At 8:00 P. M. the patient was brought into the

hospital because of cramps. Immediate operation was done, through a right rectus incision. The following facts were obtained: Appendix, floating free in pelvis, was acutely congested but hard throughout. Abdominal cavity contained fluid of mucoid consistency with grey flecks here and there, floating in the fluid.

Appendix was amputated, stump inverted and abdominal walls closed in layers.

The patient was returned to the ward cyanotic. There was considerable difficulty in getting the patient anesthetized and kept so because of cardiac embarrassment setting in with the surgical anesthetic. He entered the operating room at 9:30; operation began at 10:00, closed at 10:35 P. M.

The usual postoperative support was carried out. Hypodermoclysis, morphin for pain and insulin U x q 4 hours administered.

The patient reacted at 12:00 P. M. Temperature was 96.8, pulse 72, respiration 24. He was fairly comfortable until 3:00 A. M. when he vomited a brownish red fluid. Duodenal tube was inserted at hourly intervals but emesis of similar fluid continued until exitus at 8:10 P. M., the patient being comfortable except for emesis.

By professional courtesy, the operative incision was enlarged from ribs to symphysis. The abdominal cavity contained a free reddish brown fluid; ileum was normal except for terminal 4 inches; head of cecum and ascending colon to about middle of transverse colon, was black in color; lumen of bowel contained reddish brown fluid with specks of clotted blood here and there.

These cases appear interesting to us because of dissimilarity of symptoms. Extremes of thermal and vascular reaction; dissimilarity of gastro-enteric reaction, one having melena suggestive of enteric hemorrhage, the other emesis suggestive of severe acidosis. Neither case at the time of operation showed any local evidence of oncoming massive gangrene of the large bowel.

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TWO "LIVER DEATHS" FOLLOWING OVARIOTOMY

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While there have been many cases of liver deaths following biliary surgery reported in the literature, there are few such deaths recorded in which the surgery was done in other parts of the body. Although it has been considered that operations upon the biliary tract have been responsible for these unusual and practically incomprehensible deaths, yet, liver deaths are not confined to surgery of the biliary tract alone.

In July, 1935, the author¹¹ reported two cases of liver deaths following cholecystectomy. Now he wishes to report two cases of ovariectomy followed by high temperature deaths.

Case 1.—(No. BL482) The patient entered Grace Hospital on September 18, 1934. Examination revealed a white female, fifty-eight years old, 5 feet 4 inches tall and weighing 180 pounds. After a preliminary physical examination and laboratory work she was judged to be in very good condition for operation. Pre-operative diagnosis was a left ovarian cystoma. The patient had been unusually well for some time prior to the operation. Twenty years previously she had had a resection of the stomach for a gastric ulcer at the pylorus, performed by the author. Convalescence was stormy but the patient has been in good health ever since. Except for this operation her past history is negative.

For two months previous to present admission patient had noticed a swelling in her lower abdomen. She was advised that she had an ovarian cystoma which should be removed. Patient had no pain, loss of weight, vaginal bleeding or other symptoms.

Her blood count taken on September 18, 1934, was as follows: Hemoglobin 89 per cent; erythrocytes 4,460,000; leukocytes 7,300; polymorphonuclears 58 per cent; mononuclears 32 per cent; eosinophiles 3 per cent; basophiles 1 per cent; and monocytes 1 per cent. Blood grouping placed her in group II. Urine negative.

At operation on September 20, a large malignant ovarian cystoma was removed. There was no surgical shock. Almost immediately after operation her temperature began to rise. Six hours after operation, her temperature reached 104°. Her pulse rate was 120. She immediately developed symptoms as follows: progressive oliguria, anuria, extreme nervousness, delirium and uremia, followed by death in thirty-six hours. Her abdomen remained flaccid following operation and her temperature at the time of death was 105.8°. No autopsy was permitted. Pathological report was spindle cell sarcoma of the ovary.

Case 2.—(No. 21948) The patient was a white female, unmarried, age fifty-eight years. She had a pelvic tumor gradually enlarging for a number of years. During the past year it had rapidly increased in size until at the time of operation it was as large as a fetal head. Blood pressure, 132/70. Blood: Hemoglobin 72 per cent; erythrocytes, 3,600,000; leukocytes 5,700; polymorphonuclears 64 per cent; mononuclears 43 per cent; large mononuclears 2 per cent; basophiles 2 per cent. Blood typing placed her in group II. Urine negative. Physical examination otherwise negative.

Following two days of pre-operative preparation in the hospital this patient was apparently in good condition for laparotomy.

Operation was performed July 7, 1936. The left ovariectomy was done for a large malignant ovarian

cystoma. Operation required less than one hour's time and the patient suffered comparatively little shock. On the third day, however, she became drowsy. She was given glucose by mouth, rectum and intravenously. Also two blood transfusions were administered; all to no avail. She slowly developed the classical hepato-renal syndrome, viz.: oliguria, anuria, coma and death on the sixth post-operative day. Her temperature on the sixth day reached 107°. Pathological diagnosis: Adeno-carcinoma of the ovary, Grade 3. No autopsy was permitted.

A search of the literature has brought to light only one other such case of high temperature death following ovariectomy. This was reported by Connell.⁶

Because of the many excellent articles already published on "liver deaths," high temperature deaths and hepato-renal deaths there is no necessity to go into detail here regarding the history, symptomatology, et cetera, of this condition. A brief review of this subject, however, might not be out of place.

Charles Gordon Heyd¹² in 1924 first described the syndrome preceding certain deaths following operations upon the biliary tract, and termed them "liver deaths" because no other of the usual "causes of death" fitted the clinical picture. He classified his cases into three groups as follows:

1. Liver deaths associated with hyperpyrexia and coma—a rapidly developing lethargy, stupor and coma. Death occurs in eighteen to thirty-six hours.

2. Liver deaths in the presence of a constantly diminishing jaundice—slowly developing stupor and coma; final clinical picture similar to "cholemia death" from cirrhosis of the liver.

3. Liver deaths associated with some unrelated kidney disease—anuria is a factor in the terminal picture. Forty-eight hours after operation there is a clinical picture not dissimilar to shock, with cold, clammy skin; failure in water elimination, and a marked rise in non-protein nitrogen.

In group one the so-called "liver deaths" are the result of a disturbed or altered chemistry incident to liver failure. In group

three the cases are associated with more far-reaching chemical disturbances in which renal function and water balance are pronounced factors. In a more recent article Heyd¹³ states:

"From time immemorial, coma and liver deaths had been associated in the minds of clinicians, and not infrequently the surgeon has had an inexplicable death following rather simple gallbladder surgery and has been unable to comprehend either the cause of the mortality or the mechanism of its production. It has been our impression that these obscure and inexplicable mortalities were in some way associated with either a failure of the liver to exercise its normal and adequate protective function or that as a result of anesthesia, trauma, absorption, hemorrhage and disturbed intra-hepatic physiology, the protection ordinarily afforded by the liver was inadequate."

Heyd made a study of 557 personal cases of gallbladder disease submitted to operation, together with an analysis of the mortality rate. Many were operated upon without pre-operative preparation by reason of the serious condition when the patient entered the hospital. There were thirty-nine deaths out of 557 unselected cases, or a general mortality of 7 per cent; there were eight so-called "liver deaths," giving a mortality per se of 1.4 per cent of the total mortality.

In the "liver deaths" there were two in group one; three in group two; and three in group three. The frequency of groups two and three indicates the increase in the mortality rate in the delayed or late cases of gallbladder disease. In all of the lethal cases there was definite visible evidence of liver change, in the degree of glissonitis or fibrous changes in the capsule of the liver.

Boyce, Veal and McFetridge⁴ in an analysis of 100 consecutive deaths reported the liver death syndrome in twenty-three patients. Many other authors have written on this same subject; reporting, however, only cases of death following operations upon the biliary tract. (Eiss,⁹ Schutz, Helwig and Kuhn,¹⁵ Deaver,⁷ Boyce and McFetridge,² Stanton,¹⁷ Connell,⁵ Sutton,¹⁸ Furtwangler, Orr,¹⁴ et al.)

In 1934 Connell reported five cases of high temperature deaths in operations other than those upon the biliary tract, viz.: ovarian cyst, uterine fibroid, interval appendicitis (2) and ventral hernia. DeCourcy⁸ reports two abdominal operations (colostomy; hysterectomy) followed by high temperature deaths.

Quoting from Boyce:¹ "Orr observed a case as a late complication of mammary carcinoma. LeNoir noted it after surgery for gastric ulcer. Heuer reported a case after splenectomy for Banti's disease. Twenty-six cases of postoperative heat stroke collected by Cutting, only a few of which followed biliary surgery, seem likely in the light of our present knowledge to fall in the same category." Slevin¹⁶ reported a case following thoracostomy for empyema.

Boyce³ (The Charity Hospital of New Orleans) states: "Furthermore in a series of casually selected recent autopsies, comprising burns, intestinal obstruction, and thyroid disease, we were able to find case after case in which there was evident a striking parallelism with the deaths which occurred after surgery for biliary and pancreatic disease and after liver trauma." Boyce believes that the liver-kidney syndrome is a single pathological process.

The explanation of these hepato-renal deaths, as based upon the experience of many surgeons who have studied the subject, may be summed up as follows: The patient with biliary disease, whether or not gross obstruction is present, always exhibits some degree of liver damage, which is not, however, incompatible with the stress and strain of ordinary life. But, when surgery is undertaken, even under the most favorable circumstances, other factors are introduced, including the anesthesia, the trauma of the surgical manipulation, the associated drop in intra-abdominal temperature, and changes in intrahepatic and biliary pressure; and with these new factors, the liver, already the seat of a pathological process, cannot cope. As a result, its function promptly fails, and the toxic substances which reach it in the course of normal body metabolism are thrown off undetoxified. Then the liver cells, as they become increasingly unable to function, themselves undergo some necrotic change and themselves discharge into the circulation some additional toxic product which originates in their own degenerating cellular substance. Further: The kidney, which is, after the liver, the great detoxifying organ of the body, must take up the work of the liver, purely as a matter of physiology, when the detoxifying function of the liver fails. But, in the kidney, the margin of safety is very slight, and it is not fitted to handle even the normal products of

body metabolism, let alone, in addition, the toxins liberated by the damaged liver cells. It promptly breaks down in its turn therefore, and an overwhelming and lethal toxemia is the natural consequence. The hepatic changes in these cases always precede the kidney changes. And it is our further opinion that if the patients who die promptly with hyperpyrexia and who exhibit liver degeneration at the autopsy could be kept alive long enough, they also would show precisely the same clinical and postmortem renal changes as do the patients who die later with typical symptoms of uremia. The pathological process should center in the kidney, since its convoluted tubules are the normal channels of excretion for foreign proteins, which they assume these liver toxins to be.

The conclusion, then, is obvious, viz.: Any patient with a damaged liver is a poor risk, not only for biliary surgery, but for any surgery at all.

What can we do to prevent these hepatorenal deaths? While we all are cognizant of the fact that, due to the multiple functions of the liver, no test for liver function is of much value, we must recall that Graham¹⁰ several years ago reduced his mortality in biliary operations from 7 to 1 per cent by the use of phenoltetraiodophthalein dye test. While Graham does not claim that this dye is a test for liver function, we must admit that any test that will aid in reducing mortality from 7 to 1 per cent is worthy of trial. Zielinsky believes that liver function should be evaluated by tests of kidney function; and that in all types of biliary disease, evidence of renal insufficiency should be

regarded as presumptive evidence of hepatic insufficiency.

Another factor is the selection of a proper anesthetic. In the author's hands, nitrous oxide with an incision thoroughly anesthetized with local anesthesia results in the production of less liver damage than any other type or combination of anesthetics.

Other factors are:

1. Careful routine examination of the patient including all necessary laboratory procedures;

2. Maintenance of normal water balance and blood chlorides;

3. Protection of liver function by the administration of glucose, thus increasing the glycogen reserve of the liver;

4. Blood transfusion and intravenous calcium chloride when necessary;

5. A carefully performed operation done in a reasonably short time.

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BLOOD GROUPS AND THEIR MEDICO-LEGAL APPLICATIONS

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The present-day concept of the four human blood groups takes its origin from the investigations of Karl Landsteiner (1900) who demonstrated three distinct types of blood by simply mixing the serum of one individual with the red blood cells of another. The fourth type was discovered by Decastello and Sturli two years later.^{3,8} The scheme of the four blood groups as proposed by Landsteiner⁷ and adequately supported by experimental evidence, depends upon the varying distribution of two agglutinogens in the red blood cell named A and B and two agglutinins normally present in the serum designated by the Greek letters alpha and beta (α and β). Thus only the following four combinations are possible: group A

individuals whose cells contain the antigen A and in whose serum is found the anti-

body β ; group B individuals whose cells contain the antigen B and in whose serum is found the antibody α ; individuals of Group AB (universal recipients) whose cells contain both antigens A and B and in whose serum no antibodies are demonstrable; group O individuals (universal donors) whose cells lack antigens A and B and in whose serum antibodies α and β are both present. The agglutinin α agglutinates the red blood cell containing the antigen A and in a similar manner, the antibody β clumps the red cell containing the antigen B (Table I).

cells of the donor and recipient. Occasionally in an emergency it becomes necessary to resort to the use of a universal donor (group O) and the transfusions in these cases will be safer if the agglutinin titre of the donor's serum is low. In this manner one may avoid the rare yet dangerous universal donor with an unusually vigorous concentration of antibodies in his serum.^{4,16} Dr. O. A. Brines² of Receiving Hospital in Detroit has successfully used group O donors in a large series of transfusions.

For a description of the technic of typing and cross-matching together with a

TABLE I

Jansky Numberings	Moss Numberings	International Nomenclature*	Agglutinogens in R.B.Cs.	Agglutinins in Serum
I	IV	O	O	α and β
II	II	A	A	β
III	III	B	B	α
IV	I	AB	AB	—

*Classification proposed by Landsteiner.

The International Nomenclature is the one officially recognized by the Health Committee of the League of Nations and is recommended by the American Association of Immunologists. The Moss and Jansky numberings should be discarded entirely since they fail to give an insight into the mechanism of the four blood groups and because of the possibility of serious accidents which may and have resulted from confusing groups I and IV Jansky with IV and I Moss. Furthermore, as has been pointed out by Levine, the International Nomenclature is the only one which permits a discussion of the heredity of the blood groups.¹²

Although Landsteiner foresaw most of the medical and legal applications of the four blood groups in his original paper, it was not until the World War that even the necessity for transfusing compatible bloods became thoroughly established. At present, a transfusion is considered to be a relatively simple and safe procedure except in instances where violent and frequently fatal reactions have resulted from errors in typing.^{18,19} Wherever possible the donor and recipient should belong to the same blood group as first checked by typing and rechecked by cross-matching the serum and

complete discussion of the possible errors and difficulties involved in these procedures, the reader is referred to the book "Blood Groups and Blood Transfusion" by Alexander Wiener.²¹

Inheritance of the Four Blood Groups

In 1910 von Dungern and Hirschfeld showed that the four blood groups are inherited as Mendelian dominant characters.²⁰ The probable explanation of the mechanism of inheritance was advanced by Bernstein in 1924 who based his theory on three pairs of transmissible characters, genes A, B, and R. According to Bernstein, R (or O) is recessive and a symbol for the absence of genes A or B.¹ Thus the primitive germ cell may contain the pair of genes AA (homozygous) and in the division of the immature sperm or ovum into the mature form with half the original number of chromosomes and genes, all cells will possess the gene A. On the other hand an individual's gene makeup may be AO (heterozygous) and when chromosome reduction occurs, half of the cells will retain the gene A and the other half will be lacking in that property (group O). For this reason it is possible in matings involving two

heterozygous A or B parents, to obtain an O child. Actually it is not possible to differentiate serologically between homozygous (AA) or heterozygous (AO) individuals. Table II gives the various children to be expected from all possible matings.

TABLE II

Parents	Children Possible	Children Not Possible
OxO	O	A,B,AB
OxA	O,A	B,AB
OxB	O,B	A,AB
AxA	O,A	B,AB
BxB	O,B	A,AB
AxB	O,A,B,AB	.....
OxAB	A,B	O,AB
AxAB	A,B,AB	O
BxAB	A,B,AB	O
ABxAB	A,B,AB	O

An analysis of Table II shows that two general rules are applicable.

1. The agglutinogens A or B cannot be present in the blood of a child unless they are present in one or both parents.

2. In matings involving an O parent an AB child is not possible; similarly if either of the parents belong to group AB, an O child is not possible.

The Bernstein theory has been adequately confirmed both by family investigations and statistical studies of the incidence of the various blood groups in different races. At the present time, although thousands of bloods have been examined, only two authentic exceptions to rule 2 have been found.^{5,6} In both these cases a suitable explanation compatible with the Bernstein theory, is available. All other discrepancies have been due either to faulty technic or are attributable to illegitimacy.²¹

The Agglutinogens M and N

In addition to the agglutinogens A and B the human red blood cell contains numerous other antigenic components which are only demonstrable when the antibodies are produced by immunizing animals. Two of these agglutinogens (M and N) were discovered and investigated by Landsteiner and Levine in 1928.⁹ By means of absorption tests they were able to characterize

three types of human blood. One type contained the antigen M, another the antigen N, and in a third both M and N were present. To date no human blood has been found which is lacking in both of these properties. In-as-much as the factors M

TABLE III

Locality	%O	%A	%B	%AB
United States	45	41	10	4
Poland	32	38	21	9
Detroit	45	36	14	5
Eloise Hospital	43	35	13	9

Data modified from Weiner (21 p. 158).

TABLE IV

Locality	%M	%N	%MN
Berlin	31	20	49
Japan	30	24	46
France	33	21	46
Copenhagen	30	26	44
New York City	26	20	54
Eloise Hospital	32	26	42

Data modified from Wiener (21 p. 133).

and N are entirely unrelated to the well known blood groups, three types of group O blood are readily demonstrable. One type would be O^M, a second O^N, and the third O^{MN}. Similar subdivisions are possible for the blood groups A, B, and AB. Since antibodies specific for M and N are not present in normal human serum, these properties do not require consideration in the selection of compatible donors for transfusions. The above findings of Landsteiner and Levine have been amply confirmed by numerous investigators. For a description of the technic involved in the demonstration of the properties M and N the reader is referred either to the original paper⁹ or to "Blood Groups and Blood Transfusion" by Wiener.²¹

During the past summer the author examined 260 bloods from the general patient population of Eloise Hospital, Eloise, Michigan.* The number of bloods studied is small but the results are presented to illustrate the distribution of the factors M and N in the vicinity of Detroit. If one

*The author is indebted to Drs. R. C. Johnson and S. E. Gould of Eloise Hospital for their cooperation and interest.

compares the results of the study at Eloise Hospital with the others listed, the agreement is fairly close. The high incidence of group AB may possibly be due to the large number of Polish patients whose bloods were examined. (Tables III and IV)

TABLE V

Type of Parents	Children Possible	Children Not Possible
MxM	M	MN,N
NxN	N	MN,M
MxN	MN	M,N
MxMN	M,MN	N
NxMN	N,MN	M
MNxMN	M,N,MN	....

zygous and the other heterozygous (MxMN or NxMN) children of the parental types are to be expected in a ratio of 50:50.

5. In matings with both parents heterozygous (MNxMN) children of all types are possible and no exclusion can be made.

The correctness of the above theory of Landsteiner and Levine has been substantiated by various authors in a large series of family and statistical studies. Table VI illustrates the excellent agreement between the theoretical and actual values obtained from the examination of 2,365 children from various types of matings.

Inasmuch as one cannot exclude the possibility that some of the children were illegitimate, a portion of the error may be accounted for on that basis.

TABLE VI

Matings	per cent M		per cent N		per cent MN	
	theory	actual	theory	actual	theory	actual
MxM	100	99.5	0	0.0	0	0.5
NxN	0	0.0	100	100.0	0	0.0
MxN	0	0.0	0	1.0	100	99.0
MxMN	50	46.4	0	.6	50	53.0
NxMN	0	.4	50	50.9	50	48.7
MNxMN	25	24.3	25	21.9	50	53.8

*Data modified from Wiener.²¹

Heredity of M and N

In 1928 Landsteiner and Levine published the results of their findings concerning the inheritance of the agglutinogens M and N.¹⁰ According to these authors, two genes are involved (M and N) both of which are equally dominant. Thus an individual of type M or N is always homozygous (MM or NN) whereas, the MN individual is always heterozygous. Table V shows all the possible matings and the following rules are applicable:¹³

1. The factor M or N cannot appear in the blood of a child unless it is present in the blood of one or both parents.

2. In matings involving M parents (MxM) all the children are of the same type. This rule also applies to NxN matings.

3. In matings of the type MxN the children are all of the type MN.

4. In matings where one parent is homo-

Medicolegal Applications

The success of the application of our knowledge of human blood to the solution of certain legal problems is due, as has been pointed out by Dr. Philip Levine, to the fact that "nature endowed the red blood cells with a number of substances which satisfy the following conditions: They appear very early in life, are constant throughout life and cannot be changed by any known environmental influences; their demonstration is very simple as is the mechanism of their heredity."¹⁵

In 1903 Landsteiner and Richter demonstrated that it was also possible to group both dried and aged blood and the application of this fact was recommended for medicolegal purposes.¹¹ One is now able to determine the presence of agglutinogens A and B and frequently agglutinins α and β in minute quantities of dried blood stain. The following case reported by Fujiwara and

taken from Wiener²¹ may be cited as an example.

"A murder had been committed by stabbing. From the nature of the wound, it seemed certain that some of the blood must have spurted on the murderer's clothes. Upon adequate grounds, suspicion of the murder centered upon a man K. He, however, denied any knowledge of it. The clothes of K were secured one month after the crime, and on them several brown irregular stains were found which by chemical and spectroscopic tests proved to be blood. The precipitin test showed that it was human blood, and further examination revealed that the blood belonged to group B, which was the same as that of the murdered individual. On the other hand, K was found to belong to Group A. K then confessed his crime."

Inasmuch as the agglutinogens A and B are present in other body cells such as sperm, liver, kidney and lung and also in saliva, urine, and seminal fluid, the scope of the application of such tests in forensic medicine has increased. For example, the agglutinogens A and B have been detected in the saliva on cigarette stubs and envelopes and also in semen on stained clothing.²¹

Perhaps the outstanding medicolegal application of blood tests is found in the determination of blood relationships. A much discussed example is the famous Watkins-Bamburger case in Chicago which was satisfactorily settled by means of blood typings. Mrs. W. returned from the hospital and found the label "B" on her baby's back. Similarly, Mrs. B. noticed that her child was labeled "W." A blood examination of the parents and children yielded the following information:

Group		Group	
Mr. B.	AB	Mr. W.	O
Mrs. B.	O	Mrs. W.	O
Baby "W"	O	Baby "B"	A

It is quite obvious that the two babies had been labeled correctly but had somehow been interchanged in the hospital. The Watkins mating (OxO) could never have resulted in an A child.

Blood tests have also been of value for the exclusion of paternity in cases where an individual is named as the father of an infant born out of wedlock or where the husband denies paternity. Two examples will be cited.

The first case is one from Detroit in which the author and Dr. Walter Glazer had the opportunity to examine the bloods. It represents an instance where an exclu-

sion of paternity was possible on the basis of the four blood groups alone. Mr. X., a married man, was accused of being the father of Miss Y.'s child. Blood tests revealed the following:

	Group	Type
Mr. X.	B	N
Miss Y.	O	N
Baby	A	N

As can be seen from rule one under Table II, the property A could not be present in the blood of the child unless it was also represented in the blood of one or both parents. Therefore, Mr. X. was falsely accused and was not the father of Miss Y.'s child. Incidentally, the exclusion of paternity in this case was not possible using factors M and N alone. The father of the above child was an individual of the blood type A^N or AB^N.

The second case is also from Detroit and we present it to illustrate the application of the properties M and N in paternity disputes.

Mr. X and Miss Y had lived together as man and wife for six years and during this time four children were born. In 1939 Mr. X refused to support the children any longer on the grounds that he was not their father. Miss Y substantiated his statement and named a Mr. Z as the parent of all the children. Mr. Z did not deny relations with Miss Y but he did deny paternity. Blood from the three adults and four children was examined with the following results:

	Group	Type
Mr. X	A	M
Miss Y	O	N
Mr. Z	AB	MN
Jane	A	MN
Frank	A	N
Lloyd	B	N
Mabel	A	N

On the basis of the four blood groups alone Mr. X could only be excluded as the father of Lloyd since the property B did not appear in the blood of Mr. X and Miss Y. However, Frank and Lloyd were twins and therefore it seemed likely that Mr. X was also not the father of Frank even though an A child was compatible with the above mating. Nevertheless, if one considered the possibility of superfetation wherein two different males may impregnate separate ova in the same female, then Mr. X might well have been the father of one of the twins. On the basis of M and N however, Mr. X was definitely excluded as

the parent of Frank, Lloyd and Mabel because they belonged to type N and in a mating between Mr. X and Miss Y only MN children are possible. The remaining child was compatible with the above mating. Mr. Z on the other hand, could not be excluded as the father of any of the children because their blood types were all compatible with a mating between Mr. Z and Miss Y.

While blood tests are useful for the exclusion of paternity, they do not prove that a particular man is the father of a given child except in rare cases where the court is convinced that only two men cohabitated with the woman.²¹

In the thirty-nine years which have elapsed since the original discovery of the blood groups by Karl Landsteiner numerous investigators throughout the world have slowly amassed the data which comprises our present knowledge of human blood. This knowledge, in the hands of competent workers, has been applied in blood transfusions, anthropology, immunology, genetics, and is available as a dependable tool for the solution of certain of the medicolegal problems herein described. Wiener has calculated that almost 70 per cent of cases involving interchange of infants can be solved by utilizing blood tests. Furthermore, in cases of disputed paternity, exclusion by means of the four blood groups alone, is possible in 16 per cent of all cases. If factors M and N are included, the chances for exclusion are doubled. According to Wiener approximately 30 to 50 per cent of all defendants denying paternity are falsely accused. In New York City over 1,000 such cases are brought into court each year. In the Wayne County Circuit Court of Detroit the data obtained through the courtesy of Edward Pokorny, Friend of the Court, show a gradual increase in the number of cases of illegitimacy involving court orders for support from 143 in 1934, to 170 in 1936, to 243 in the first nine and a half months of 1938. The practical value of the evidence which blood tests can offer to the accused individual and to the community is apparent.

Although the medicolegal application of blood tests in European courts has received rather wide recognition, the legal profession in this country has been hesitant to accept the available scientific data as evidence.

However, the attitude of the American courts is gradually changing. In his 1934 supplement on "Evidence" Professor Wigmore has included a discussion of the principles and genetics of blood groups.²² He says, "At the hands of expert specialists—but of specialists only—the tests ought to be more widely known and used in this country, within the limited scope of their probative value." The medical profession is also beginning to recognize the significance of blood tests and in 1934 the section on forensic medicine of the American Medical Association passed the following motion unanimously:¹⁷

"Resolved that the session organize a committee for the purpose of acquainting the suitable authorities in the legal profession with the existence and reliability of the blood grouping tests, so that statutes may be enacted authorizing courts to order individuals to submit to blood grouping tests when they are required, in those jurisdictions in which blood tests are not obligatory at present."

As a result of the combined efforts of the legal and medical professions, very definite progress has been made in the last few years. In 1935 the New York State Legislature granted the courts power to request blood tests in cases of disputed paternity. In the same year the state of Wisconsin followed suit and at present a similar bill is pending in the New Jersey Legislature. The Wisconsin Law formulated by Dr. Levine and members of the faculty of the University of Wisconsin Law School, clearly states the essential features of the blood tests.¹⁴ The persons involved shall "submit to one or more blood tests, to determine whether or not the defendant can be excluded as being the father of the child. The results of the test shall be receivable in evidence, but only in cases where definite exclusion is established." Similar legislation in the State of Michigan would be highly desirable and deserves the coöperation of the legal and medical professions.

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LUMINAL AND POSTOPERATIVE TEMPERATURE*

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The pre-operative use of luminal to produce semi-anesthesia has been described previously.² It has been noted that some patients have a fever before operation and that they may develop a postoperative temperature elevation from slight pulmonary complications regardless of the anesthetic^{1,3,4} agent. This analysis of 132 operative cases, some with and some without preoperative luminal, was undertaken to determine whether luminal influences the postoperative temperature.

The patients ranged from seven to seventy-one years in age; one-half of the cases were between the ages of twenty and fifty years.

Of the 132 patients twenty-six had appendectomy, twenty-four hernioplasty, eleven cholecystectomy, seven thyroidectomy, and five radical amputation of the breast; other operations included gastro-enterostomy, relief of intestinal obstruction, amputation of an extremity, nephrectomy, colostomy, hysterectomy, and abdominal-perineal resection of the rectum.

The operations were performed under local nitrous-oxide ether, drop ether, spinal, avertin, or colonic ether anesthesia.

No case was included in which there was clinical evidence of septic fever, either before or after operation.

Twenty-five patients received luminal on the evening before operation, the dose varying from 1½ to 4 grains. These twenty-five patients, with thirty-one others, a group totaling sixty-six, received luminal on the morning of operation. The quantity of luminal administered was 10 gr. in three patients, 9 gr. in three, 8 gr. in nineteen, 7 gr. in seven, 6 gr. in twenty-four, 4 gr. in seven, and less than 4 gr. in three patients. This group was compared with another group of sixty-six patients who received no luminal whatever. Morphine or pantopon and atropine were given to patients in the two

groups in approximately the same amounts.

Each curve in Figure 1 represents the average maximum oral temperature of the

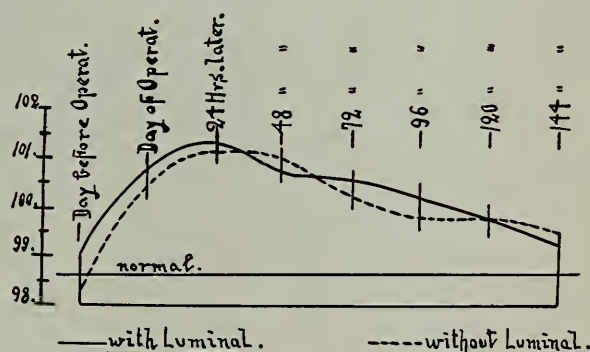


Fig. 1.

sixty-six patients in that group. Of the six patients exhibiting high peaks in temperature only two had received luminal, and the two cases showing the highest elevation were in the group receiving no luminal. No fatal hyperpyrexia occurred in either group.

Conclusion.—In the 132 cases studied, there was no indication that luminal predisposes to abnormal elevations of temperature following its use.

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REPORT OF AN ISOLATED CASE OF PARATYPHOID B

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The following case is reported for two reasons: First, because this rather rare condition is becoming more common, as evidenced by uncompiled statistics for this year; second, because a thorough search by the local health department could find no trace of its origin, either by contamination or the carrier route.

G. T., a white, American, single man, aged twenty-four, presented himself on June 8, 1939, complaining of diarrhea and biliousness. Examination was rather cursory and patient was given medication to alleviate the diarrhea. On the following day, the patient was seen in the home and examination revealed a flushed individual with a temperature of 103⁴⁰, complaining of severe headache and backache. His pulse was sixty per minute. The blood count showed a leukopenia of 4,700 wbc's with a preponderance of lymphocytes. Blood culture subsequently proved the invading organism to be bacillus para-

typhosis, and not the suspected typhoid bacillus. At the end of the fifteenth day the temperature was normal and the patient unknowingly got up out of bed. His temperature immediately rose to 104⁴⁰ and persisted at a high level for three more weeks and gradually became normal on July 22. Stool cultures had to be repeated for three more weeks before three consecutive negative stools could be obtained for release from quarantine.

There were no complications and the patient has now established a normal convalescence.

THE RÔLE OF ALLERGY IN SOME OF THE DERMATOSES OF QUESTIONABLE ETIOLOGY

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In 1923 the title of the chairman's address before the Section of Dermatology and Syphilology of the American Medical Association was "Etiology Unknown." Haase⁷ reminded us that since the discovery of bacteria, fungi and protozoa, dermatology as well as other branches of medicine, had made enormous advances in the study of disease causation. He further recalled that unfortunately dermatological practice for the most part does not concern itself with the so-called infectious conditions, but the much larger group of non-infectious dermatoses. Haase's remarks with but few exceptions are equally pertinent today and we are still forced to admit that the etiology of most of our common skin diseases remains as obscure as when he coined the phrase "Etiology Unknown."

During the intervening thirteen years certain fundamental facts have come to light, which have materially enlarged our concept of these cutaneous syndromes. Unhappily, however, a complete understanding of their pathogenesis remains as elusive as ever. In view of the welcome assistance, during recent years, that the study of allergy has lent to the fuller understanding of numerous dermatological problems, it was deemed advisable, in such a symposium, to inquire into the rôle of allergy in some of the dermatoses whose etiology is still obscure.

We shall not especially concern ourselves with the three general types of allergy, the application of which has contributed so generously to recent dermatological progress. We refer to:

1. Familial allergy (hay fever-asthma group) represented by the now well known atopic eczema.
2. Epidermal allergy or contact dermatitis, a form of allergy that is not familial and affects only the skin.
3. Cutaneous manifestations of infectious allergy (type of tuberculin sensitiveness).

These types of allergic response, together with sensitivity to drugs, are discussed elsewhere in this symposium.

Let it be said at the outset that while an increasing interest by both the dermatologist and the allergist is evident in the pursuit of this problem, the proof of an allergic mechanism as the causative factor remains to be demonstrated. On the other hand evidence is accumulating to justify the assumption that in certain of the dermatoses of questionable etiology, specific allergens can in some cases be charged with cutaneous response.

Psoriasis

Not only because of its frequency, but more especially because of its baffling nature it was to be expected that the allergic mechanism of psoriasis should be investigated. Adamson,¹ in a recent contribution, states that psoriasis is a chronic skin disease of obscure etiology, but there is at least some evidence to support the theory that it is an allergic manifestation. He quotes Oriel and Barber's⁸ work on the urinary proteose found by them in the urine of patients with allergic conditions and states that desensitization with various dilutions of this substance were of therapeutic value, and psoriasis is one of the conditions reported by them to have been successfully treated in this manner. However, Vaughan¹² and others have demonstrated that the causative allergen is not excreted, unchanged or slightly changed, through the kidneys as a proteose and therefore specific desensitization cannot be so accomplished. It would seem that their results in psoriasis were rather due to a non-specific effect as obtained with autohemotherapy. Zeidler¹⁵ has noted that in patients suffering from pollen hay fever and psoriasis both conditions were frequently relieved by pollen therapy alone. He found that as pollen sensitivity decreased there was a comparable decrease in the activity of the psoriatic lesions. Likewise similar attempts at desensitization with scale extracts and other substances have failed to produce any conclusive evidence of a specific allergen in psoriasis.

Acne Vulgaris

Similarly, another commonly encountered cutaneous entity has been studied with reference to the allergic factor in its genesis. As perhaps was to be expected, the resultant opinions vary from Cunningham and Mendenhall's⁴ report that "practically all patients with acne are sensitive to food proteins" through Vaughan's belief that "allergy plays a part in a certain proportion of cases of acne," to Sulzberger's¹⁰ view that "foods are an insignificant factor in the production of the bulk of the cases of acne vulgaris." White¹⁴ reported a series of thirty-two cases of recurrent papular and pustular acneform eruptions in which specific foods were found to be the cause. The six most common foods were chocolate, milk, wheat, oranges, tomatoes and nuts. Some presented multiple food sensitivity. White, how-

ever, refuses to classify these cases as acne vulgaris, in spite of the fact that the usual seborrheic areas were involved. There were no comedones, no seborrhea of the face or scalp and in addition all had failed to respond to the usual acne therapy, including x-rays. This is a group of cases which in my opinion are usually mistaken for acne vulgaris, but which most probably should be regarded as an acneform eruption due to sensitivity to foods, where the halogens can be excluded as a causative factor. In my experience they occur in an older age group, tend to persist for months or years and are satisfactorily amenable to an allergic avoidance diet.

True acne vulgaris, on the other hand, does seem to be the result of a dysfunction of the endocrine mechanism. Typical acne vulgaris does not occur before the first awakening of puberty and no eunuch or senile person has acne vulgaris. It is a disease which begins with and ceases after the sex life of the human being. Acne vulgaris is uniformly influenced by endocrine changes, such as menstruation, pregnancy, adrenal tumors and the like. Accordingly, the basic etiologic factors in true acne vulgaris should seemingly be sought in an endocrine dysfunction plus an increased irritability of the pilosebaceous organs, rather than in altered reactivity to one or more specific atopens.

Seborrhea

Seborrhea and its allies, seborrheic dermatitis and seborrheic alopecia have long been held to be due to basic factors similar to those at work in acne vulgaris. Seborrhea is actively influenced by psychical and sexual processes, probably through a hormonal mechanism, which apparently becomes most active at three distinct times during the life of the individual. Up to the age of five there is a marked tendency to seborrhea of the scalp. This often disappears after five to recur again at puberty. A third period of heightened function is associated with senile changes. It would seem, therefore, that these periods of activity are associated with endocrine stimulation and, as with acne vulgaris, until conclusive proof of a related allergic mechanism is at hand, we are on safer ground to regard seborrhea as an activation of the pilosebaceous apparatus through a hormonal mechanism.

Dermatitis Herpetiformis

The possibility of an allergic mechanism in dermatitis herpetiformis seems at the present time rather more plausible. It is an old observation that this condition is made worse by the ingestion of bromide or iodide. There are several instances on record where the administration of potassium iodide by mouth or subcutaneously actually seemed to have originated the disease. Likewise the external application of potassium iodide ointment will produce local reactions in a large percentage of patients suffering with dermatitis herpetiformis. Recent work of a number of investigators tends to confirm these observations. Recently, Merfert (quoted by Sulzberger)¹¹ studied 132 cases of typical dermatitis herpetiformis in which positive reactions to the external application of potassium bromide or potassium iodide were achieved in 86 per cent, while 27 cases of pemphigus were practically negative to the same tests. This demonstration of skin hypersensitiveness to bromine and iodine together with the high eosinophilia often associated, does favor the basic allergic nature of dermatitis herpetiformis.

Also food sensitivity in dermatitis herpetiformis has recently been reported by Sammis,¹² wherein she referred to several other cases presumably on an allergic basis. Her patient, a woman, aged 33, with a strongly positive family history of allergy, developed a grouped multiforme eruption 36 hours after ingesting eggs, beef, cheese or fish. She was also sensitive to milk, strawberries, corn, alligator pear and gin. Allergic avoidance kept her free of lesions. Sulzberger¹¹ refers to a severe case of dermatitis herpetiformis in a nonatopic individual. In this case, also skin tests with common allergens, including foods, elicited numerous definite reactions of the urticarial type.

It would seem, accordingly, that specific hypersensitivity is a factor in some cases of dermatitis herpetiformis and that patients with this condition should be carefully studied with this possible etiology in mind.

Purpura

Another syndrome with cutaneous manifestations has recently been shown to follow the deliberate ingestion of food. Eyermann⁶ reports 18 cases of purpura, five of whom had positive family history for allergy while ten gave positive skin tests (of which six

indicated the offending food). Purpura more often followed the eating of egg, milk, wheat, chocolate, beef and the like, in that order of frequency. In most instances purpura of allergic origin due to food is identified by the occurrence of allergic phenomena in the antecedents, and in the patient by eosinophilia and positive skin tests. The accumulating evidence indicates that allergy will explain a great number of cases classified as Schönlein-Henock's purpura or the erythema group of diseases with visceral manifestations.

Lupus Erythematosus

The etiology of lupus erythematosus continues to remain obscure. The general character of the disease, its acute and chronic phases, centrifugal spread leaving behind a cicatricial atrophy, all suggest a local bacteria cause. The symmetry is indicative of the arrival of such bacteria from an internal source. The two bacteria that have been most under suspicion are the tubercle bacillus and the streptococcus. In neither case is the evidence at all conclusive.

That lupus erythematosus, especially the mild type, usually seen in young women, is more prevalent in recent years, is the experience of all clinicians in the larger centers of population. Engman⁵ has recently called attention to this fact and speculated on the reasons therefor. This increased interest has led to further consideration of etiological evidence and some attention has, of course, been given to a possible allergic relationship. In view of the inability of various investigators to show either tubercle bacilli or streptococci in the lesions, some have regarded the lesions as an allergic response to a small number of organisms reaching the skin through the blood stream from a distant focus somewhat in the nature of a bacterid.

Anderson and Ayers² recently described a patient in whom an extensive example of lupus erythematosus, present thirteen years, disappeared completely in two weeks, after starting the diet of a well known food fad-dist! Presumably, the removal of a specific allergen was responsible for this remarkable change. In six other patients with erythematosus lupus or actinic dermatitis, four were immediately benefitted and two unchanged following a two weeks trial of this same diet. These authors call attention to similar results in erythematosus lupus, with

other diets at the hands of a number of investigators.

It has long been known that lupus erythematosus is not only adversely affected by exposure to light, but that some cases precipitously follow overexposure to the sun's rays. Furthermore, treatment of the discoid type with heliotherapy, can promptly induce an acute disseminated erythematous lupus. Likewise, the number of erythematous lupus patients has been known to rise suddenly in March and reach its maximum in May and June. The nature of the toxin or possible allergen responsible for these changes is not, as yet, known.

Braithwaite,³ in a recent study of pink disease (acrodynia), calls attention to the rôle of physical agents, particularly heat and sunlight. Serious sequelæ he finds can often be prevented in acrodynia by protecting the child from direct daylight. It has been shown that direct sunlight rapidly destroys washed red blood cells suspended in saline. Experimentally, Braithwaite ascertained that heat was the hemolytic factor. He suggests that pink disease is essentially an allergic reaction to heated (thus toxified) blood. Subcutaneous injections of hemolyzed citrated blood produced severe reactions in a child with pink disease and no reaction in controls. Such an hypothesis might conceivably apply to other light-sensitive conditions as lupus erythematosus, actinic dermatitis and hydroa estivale. Accordingly, if toxified blood could be shown to be the

allergen, the etiology of light-sensitive dermatoses would be considerably clarified.

Similarly, other of the dermatological syndromes, such as lichen planus, acne rosacea, pemphigus and pityriasis rosea, have investigated for a possible allergic mechanism, but the available evidence up to the present time is insufficient to substantiate an allergic relationship.

Conclusions

1. An allergic mechanism has been demonstrated in certain cases of dermatitis herpetiformis, purpura and acneform eruption of the face.
2. The rôle of allergy in the etiology of psoriasis, acne vulgaris, seborrhea and lupus erythematosus has not been demonstrated.
3. Further investigative studies into the etiology of the common dermatoses of obscure causation should include the rôle played by allergy.

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FUNDAMENTALS OF TREATMENT IN GYNECOLOGY

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The scope of treatment by the gynecologist has broadened so that he must relieve not only the three great symptoms of pain, bleeding and discharge, but he must also be familiar with the constitutional and endocrine factors involved in the prophylactic and medical care of the patient. It is not the purpose of this paper to delve too deeply into the scientific treatment but rather to present briefly some fundamental principles or methods in managing gynecologic conditions. Treatment, of course, depends on careful diagnosis, which means careful history, and careful examination.

The first glimpse of the patient takes in many factors such as age and appearance. In childhood we are confronted with:

1. Anomalies
2. Adhesions of the clitoris or labia
3. Neisser infection
4. Discharge without Neisser as foreign body
5. And rarely tumors of the genital organs.

The management:

1. Examine vagina with a small urethral speculum
2. Smears for Neisser and other bacteria
3. Adhesions are separated — Neisser treated by weak silver instillations
4. Theelin and corbus vaccine have not helped in my cases
5. Foreign bodies are removed

One may be confronted with endocrine such as this girl of eleven with breast secretion and marked sexual development for treatment. Careful endocrine studies and examination for tumor of the ovary revealed no unusual finding. There was no treatment.

Other patients present underdevelopment of the female sex characteristics, or thyroid or pituitary dyscrasias. The hypo-ovarian types show many types of symptoms, such as:

1. Amenorrhea
2. Dysmenorrhea
3. Discharge
4. Functional bleeding

By proper attention to this so called hypoplastic group with the use of those endocrines which stimulate the ovary, and with the occasional use of regulated pituitary x-ray, the ovarian function can be developed as a prophylactic for future dysmenorrhea, dyspareunia and sterility. Many patients of this type present themselves for treatment of sterility at 25 years of age, when the treatment should have been started at puberty. In difficult functional bleeding cases where curettage and suspension have been carried out without effect, I have had good results with the injection of lipiodol in the uterus. X-ray of the pituitary has been recommended for years, but the results are not always definite. Treatment with hormones, and x-ray of the spleen should also be tried. Wintz of Erlangen made it clear to me that there is never any stimulation of the ovary with x-ray treatment.

Thyroid and pituitary cases require adequate study and treatment. The fundamental point to be emphasized is that endocrine and constitutional factors must be recognized in childhood.

Vaginal Bleeding

Bleeding is the most alarming symptom to the patient and abortion perhaps the most

frequent cause. In threatened abortion, gentle examination on the second visit, to be sure there is no retroversion, bed rest, morphine rectal suppository will usually stop the hemorrhage. There is no reason for ice bag, packing of vagina, or elevation of foot of bed, except in severe hemorrhage. Vitamin E and progestin have not done unusual things for my patients, but I will continue to try them in habitual abortion. In cases of abortion with bleeding and fever examine the patient vaginally, and if there is any tenderness outside the confines of the uterus do not curette. It is safe to curette if infection is in the products of conception. The curettage should be done only with sharp curettes. If bleeding is profuse ergotrate intravenously or packing of uterus with 2-inch bandage soaked in alcohol. The temperature may go to 102° F. with pack in cavity, but will disappear after removal of pack. Personally, I never irrigate the uterus with hot water. If peritonitis has developed the cul-de-sac may be drained. Parametritis is treated conservatively unless suppuration occurs. If thrombophlebitis occurs ligate the iliac veins and ovarian veins.

In hydatid mole the Friedman test is positive in dilution of 1 to 1000; however, if patient looks bad clinically do laparotomy, open uterus and if area is suspicious for chorioepithelioma, do hysterectomy.

An ectopic pregnancy may be diagnosed by the classic symptoms of skipped period, with stain and pain six days after; a decidual cast may deceive one into believing he is dealing with a simple abortion. Cul-de-sac puncture or colpotomy are of value for diagnosis. Percussion of the patient while standing up may show dullness in the lower abdomen due to blood accumulation. If the patient looks sick do not transfer to bed from ambulance but directly to operating table; open abdomen as soon as possible, and if pulseless massage heart. Don't wait for patient to come out of shock. Severe bleeding may also come from bleeding follicle or corpus luteum.

Other causes of bleeding include erosions, polyps, hyperplasia of endometrium, fibroids, inflammatory disease, adenomyosis, and malignancies of the Mullerian tract. In treating erosions of the cervix a biopsy, cautery or conization may be used only if there is no pelvic tenderness. The danger of cautery and more particularly conization

is stricture and hemorrhage. Hemorrhage may occur two weeks after conization and may be severe enough to endanger life. Pack vagina with bandages. It may be necessary to ligate cervical branches of uterine artery. Hyperplasia of endometrium requires curettage. At the menopause a D & C and 2400 mg. hours of radium may be used.

The treatment of fibromyomata in young adults raises the question of preserving the uterus. Myomectomy should be considered, x-ray therapy may be used, and has the following contraindications:

1. Uncertain diagnosis, may be ovarian cyst
2. Suspicion of malignancy in fundus—exploratory curettage. Avoid hysterectomy one week after curettage since the danger of infection is greater
3. Submucous fibroids
4. Fibroids and inflammatory disease
5. Fibroids reaching above umbilicus
1. Adenomyosis requires surgery
2. Endometriosis may be treated by radiation or surgery
3. Malignancy of the cervix and body of the uterus

The Chrobak test is valuable in servical malignancy. There is no substitute for conization, biopsy and curettage. Schiller test and colposcope still leave the diagnosis uncertain. The third stage of healing with epithelioid invasion requires careful microscopic examination in the differential diagnosis. If malignancy of the cervix is found one must make a cystoscopic and rectal examination. Cystoscopy may show bullous edema, striation, imminent perforation of the bladder or obstruction of the ureter. Rectal examination with two hands will disclose the status of the parametrium. These findings determine the operability according to Werthheim. If not operable radium may be used.

Carcinoma of the fundus is treated by total hysterectomy and without previous radiation. The treatment with endocrines has become so popular that three cases of carcinoma of the fundus have come under my observation which were treated with endocrines without curettage. It is absolutely essential to have a diagnostic curettage before treatment. In advanced carcinoma, 0.5

c.c. of 95 per cent, or a larger amount of a dilute solution of alcohol may be injected into the spinal canal. For profuse and foul discharge from the vagina in late malignancy, a powder of half and half iodoform and charcoal packed into the vagina will remove the unpleasant odor and make the patient comfortable.

Pain in Gynecology

1. Dyspareunia:
 - (a) Incise perineum in midline under local or general with the index finger in the rectum. The patient must then be assured during repeated visits
2. Dysmenorrhea:
 - (a) Atropine best medical treatment
 - (b) Results with emmenin have not been as good in my cases as reports would indicate; may need larger doses
 - (c) D & C and stem pessary for three months
 - (d) Resection of the presacral nerves
3. Pelvic Inflammatory Disease:
 - (a) Neisser
 - (b) Postabortive or Puerperal
 - (c) Bowel and Appendix
 - (d) Tuberculosis
 - (e) Rare cases, as stem pessaries

In infections arising after delivery or abortion, the temperature begins on the fourth day in puerperal infections; on the eighth day in Neisserian; and on the eleventh day in phlebitis or breast infections. Acute pelvic inflammatory disease is treated conservatively. Subacute and chronic pelvic inflammatory disease may be treated with tampons and milk injections. Elliott treatment has helped in many cases but my results have not been quite as regular as some of the reports. It has been advocated after operation and in sepsis. It is a logical and good method but not a panacea. Recent reports indicate that the fever therapy for this condition is losing ground. Tuberculous pelvic inflammatory disease is treated by an exploratory laparotomy, and then x-ray treatment. In the diagnosis of pelvic abscess examine with one finger in rectum, and in vagina. If there is high temperature tenesmus, mucus discharge and paresis sphincter ani, drain the abscess because perforation of the rectum is imminent. In Dupuytren's abscess, drain from the inguinal

region into the vagina. Pain from a stricture of the ureter may be confused with tubal pain. Catheterization of the ureter will relieve the symptoms.

Fibroids only cause pain during pregnancy, degeneration and infection. Surgery is the only adequate treatment. If the fibroid is intraligamentary, always catheterize the ureter before operation. In cases of ovarian cyst, the operator cannot distinguish the degree of malignancy. In malignancy the entire mass should be removed, and followed with x-ray therapy since the ovarian tumors are sensitive to x-ray.

Malpositions—Retroversion of Uterus

1. Conservative treatment:
 - (a) 20 per cent congenital—replace with Kustner method
 - (b) Pessary treatment — Hodge or Smith
 - (c) Mercury bag in adherent retroversion or pregnancy
2. Operative Treatment for:
 - (a) Sterility
 - (b) Nervous symptoms
 - (c) Pain
 - (d) Excessive bleeding
3. Methods—Operative:
 - (a) Vaginal suspension
 - (b) Abdominal suspension

Discharge

The causes of discharge are: 1. X-ray. 2. Grave's disease. 3. Severe tuberculosis. In young girls, as a rule, it is not Neisserian infection, but rather an expression of disturbance of ovarian function. In puberty the discharge consists of epithelial cells and few Döderlein bacilli. In climacteric no Döderlein bacilli are found. The discharge is usually due to a hypo-ovarian secretion. The glycogen in vaginal wall epithelium depends on ovarian function. This glycogen is changed into lactic acid. Döderlein can only live in an acid media, not in a neutral or alkaline media. If one tests the acidity of the vagina after using K. Y. jelly, on the speculum, it will always be acid because the K. Y. jelly gives an acid reaction.

Every discharge should have three examinations:

1. For gonococcus—Gram stain of smears
 - (a) From urethra
 - (b) Meati Bartholin glands
 - (c) From cervix
2. Wash for trichomonas

Warm saline wash and specimen examined fresh. Stain for trichomonas

3. For monilia
 - (a) 10 per cent sodium hydroxide on smear
 - (b) Gram stain
 - (c) Loeffler's methylene blue stain
 - (d) Culture

Many authors state that discharge is characteristic, foamy for trichomonas and cheesy yellow for monilia. However, I have been mistaken so many times that I feel the tests should be made as a routine, for Neisser topical applications with silver preparations and douches for cleanliness have in my hands been as satisfactory as corbus vaccine. Occasionally vaccines and foreign protein have been found helpful in an associated arthritis or pelvic inflammatory disease.

For trichomonas all authors report 80 per cent good results. There are many recurrences. The husband should be checked for trichomonas. I never scrub the vagina with green soap. A 10 per cent solution of arsenical in glycerine with a teaspoon of lactic acid to 1 quart of lukewarm water as a douche has been as effective as any. Other treatments used are: (1) Lassar's paste, (2) devegan, (3) picric acid treatment, (4) the quinine preparations, (5) the Shelanski treatment of silver picrate, (6) concentrated salt solution, (7) the lactic—citric acid tablets of Brunswick Medical Company of Chicago in which an attempt is made to restore the Döderlein bacillus to power has been advanced as a new treatment.

However, these treatments are worth while, remembering that all authors with various forms of treatment give 80 per cent result in their conclusions. The monilia responds well to local application—gentian violet 1 per cent.

Hesseltine, in the *Journal of the American Medical Association* showed that soda douches improved the results in monilia, but in my own experience douching is not at all necessary and alkaline douches added nothing. In personal conversation with Hesseltine he informed me that further study did not bear out the original studies of the value of alkaline douches. If monilia are present during pregnancy, watch for thrush in the baby. Clinically, I have found a definite association of monilia in vagina to thrush in the baby.

Finding these tests negative and no other

lesions of the cervix to suggest erosion, malignancy or tuberculosis, one reviews the patient for endocrine etiology. During pregnancy some ovarian functions are depressed and we may find a purulent discharge associated with a granular appearing vaginal vault. This may be due to Neisser infection or have an endocrine basis. If it is observed during delivery the patient should be watched for postpartum infection. If endocrine, it is cured by lactic acid douches and during pregnancy requires two weeks of treatment. The condition is colpitis granularis. Colpitis senilis produces a yellow discharge, with an atrophic vaginal wall, with hemorrhages. This is also due to lack of ovarian function. Treatment consists of ovarian injection and swabbing the vagina with iodine. No douches are used. Colpitis emphysematosis (foamy discharge) requires no special treatment.

Sterility

A systematic review of all the factors is required. Careful sperm studies (Moench), and certainty that the sperm reach high in the canal (Hunner tests).

Inflation, salpingography, and pneumosalpingography. The inflation should be done five days after the period with CO₂ gas with a long cannula. Graphs may be made to show tubal spasms or adhesions. The Leff stethoscope can be used to listen over the abdomen and the Momberg cannula with the long tip insures passing any obstruction that may be present at the internal os.

(1) General examination of the male and female

(2) Metabolism studies of the male and female

(3) Vitamin E diet has not been very helpful

- (4) Curettage
- (5) Repeated sounding
- (6) Endocrine therapy
- (7) Artificial insemination may be necessary
- (8) Pituitary x-ray
- (9) Suspension
- (10) Salpingostomy and tubal implantation are valuable. The results are not always as promising as one would hope for. After salpingostomy, inflation should be done in five days.
- (11) Pituitary x-ray in normal couples where everything done so far has not been effective.
- (12) Hormone studies in females of couples where everything that was reviewed gave little help as far as producing results was concerned.

Birth Control

1. Rhythm method; have had several doctors' relatives carefully instructed in this method, in whom pregnancy occurred.

2. Diaphragm and jelly are very effective.

3. Gomco ring is dangerous and may penetrate the uterus and pregnancy may occur.

4. McCormick pessary-glycerine balloon on pessary, which closes the cervix and requires removal by the physician every month or two, has not been sufficiently tried.

In the menopause symptoms of frequency of urination, discharge are vaso-motor phenomena. Endocrine therapy and pituitary x-ray have been used with advantage. While this brief summary of the fundamentals in the treatment may have omitted some favorite treatment of an individual, I hope it will serve as a practical aid in ordinary gynecologic treatment.

THE JOURNAL

OF THE

Michigan State Medical Society

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OCTOBER, 1939

*"Every man owes some of his time to the up-
building of the profession to which he belongs."*

—THEODORE ROOSEVELT.

EDITORIAL

MENTAL AND PHYSICAL HEALTH

In the Andrew P. Biddle lecture before the seventy-fourth annual meeting of the Michigan State Medical Society, Dr. Rock Sleyster, president of the American Medical Association, emphasizes the importance of attention to mental as well as physical health, on the part of physicians. He defines "mental health" in a broad way, to include "thinking which adjusts the individual and collectively the people to conditions in such a manner as to in the end promote progress, security, morals, health, happiness, independence and self expression." "I include under 'mental health,'" says he, "the possession of those attributes on which the advancement of civilization has so largely

depended—such qualities as character, honesty, ideals, morals, industry, unselfishness and good citizenship."

A great deal has taken place in the past decade to undermine mental health so conceived. Much of the condition in which the world (or if we may narrow it down to our own country) finds itself may be attributed to the depression, or, as Dr. Sleyster takes as his theme, What Price Depression? The late James Harvey Robinson in a book of permanent value, *The Mind in the Making*, quotes an old Stoic proverb to the effect that "Men are tormented by the opinions they have of things rather than by things themselves." Emerson once said, "Things are in the saddle and they ride mankind." Mental health, then, can prevail only when we are in a condition of harmonious adjustment to our environment, when we can rise above and prove superior to the "things" that trouble us. Most of us never had that entity we call economic or social security. In our earlier years, we never gave it a thought. Why worry about it now? This does not mean to trust to the charity and good offices of others. Our fathers did not do much worrying. They worked hard and lived contentedly with less. They sought

"To catch Dame Fortune's golden smile,
Assiduous wait upon her;
And gather gear by ev'ry wile
That's justified by honor:
Not for to hide it in a hedge,
Nor for a train-attendant;
But for the glorious privilege
Of being independent."

However, what has the physician to do with all this? It is the physician in general practice (not the psychiatrist) who is consulted by patients, many in whom he can discover no organic basis for their symptoms. How often are such patients brushed aside with the statement that it is nothing but nerves. This class of patient usually drifts to the irregular or to mental healers, where the patient often reports that he has been cured. The average physician feels that the specialty of neurology and psychiatry is so technical and so far beyond him that he has no disposition to do anything about it, and so his nervous patients drift. Some authorities maintain that in approximately one-third of all cases seeking medical aid, there is a psychogenic factor that must be recognized in planning treatment. How important there-

JOUR. M.S.M.S.

fore that the general practitioner have a working knowledge of psychotherapy. He need not be a specialist. His whole relation to his patient, however, should be one of stimulating hope. He should be able to dispel or to minimize any fears with which the patient may be obsessed.

MICHIGAN PIONEER IN THE USE OF IODIZED SALT

This journal has received a lengthy communication on the subject of iodized salt in the prevention of simple goiter. The contribution comes from the Department of Pediatrics and Infectious Diseases of the University of Michigan Medical School. The movement for the employment of iodized salt began in this state, where it was sponsored by the Michigan State Medical Society at the inaugural meeting of the pediatric section in June, 1922. An advisory committee of five members was appointed with Dr. D. M. Cowie as chairman. The advisory committee met in January, 1923, to outline the studies for the first year's work. At this meeting the advisability of using small amounts of sodium iodide in table salt was suggested by Chairman Cowie. By December 14, 1923, samples of iodized salt were presented to the Committee, which proved 1/100 per cent of sodium iodide added to table salt was barely detectable to the taste and when 1/200 per cent was added, it could not be detected at all. On March 7, 1924, a joint meeting of the committee with the Michigan Salt Producers Association was held at which the interest and co-operation of the salt manufacturers were assured. A vote of approval was given the advisory board and a certificate was issued by the Michigan State Medical Society to the salt manufacturers endorsing the iodized salt. The date was March 17, 1924. The certificate read as follows:

"This salt contains .01 per cent sodium iodide, the amount approved by the Council and advocated by the Pediatric Section of the Michigan State Medical Society as a preventive of goiter. Individuals using this salt must not take other preparations of iodine without the advice of their physician. To be effective, this salt must be used for cooking as well as for table use. (Signed) The Committee."

It was found that 2 or 3 milligrams of sodium iodide per week will prevent goiter and 10 milligrams a week were found to do no harm. By May, 1924, an extensive edu-

cational program by means of public lectures and press was prepared for the people of Michigan. Since this time the use of sodium iodide in table salt has been subject to extensive controversy concerning its merits and demerits. Among the arguments against its universal use was the contention that some soils contained sufficient iodine, particularly those areas where goiter showed no prevalence, that to add iodized salt would produce a thyrotoxicosis or hyperthyroidism. Others wrote of endemic goiter in places where sea salt was rich in iodine. Yet others reported the absence of goiter in districts where the soil contained no iodine.

Dr. Harry A. Towsley has summarized the literature on the use of iodized salt for the iodized salt committee and has briefed the arguments for and against its use. A bibliography of sixty numbers is presented.

Among those favoring the use of iodized salt are John Plummer, Booth, Higgins, Kimball, Fischler, McClendon, Marine and Cowie. Some of those advocating the use of iodized salt claim that those opposing its use have done so on insufficient evidence. Packages of salt sold in Michigan bear on the label a statement of composition.

CHINESE CHECKERS

Of course I wouldna play at cards,
Nor would I waste my time at bridge,
Why, I would need 'bout seven guards
Were I so silly to join such rage.

You have to rise ere breakfast time,
You must not be at home at all,
You play and play till'st time to dine,
And then your head aches and you stall.

Why should I—me—a he-man strong,
A rugged friend of symphony,
I ne'er would leave the cultured throng
To con o'er such simplicity.

But, oh! oh, oh, what's happened now—
What's this I feel?—a foolish strain—
When I from silly things gave vow,
A something strange swims through my brain;

I feel things queer, I want to rave,
I feel I'll jump from bridge or boat,
A crazy game is what I crave,
It's Chinese Checkers—they've got my goat!

WEELUM

Lecturer (in village hall): "Now you all know what a molecule is."

Chairman (interrupting): "Most of us do, but perhaps you had better explain for the benefit of those who have never been up in one."—*Medley*, London.

AUTUMN POSTGRADUATE COURSES

1939

UNIVERSITY OF MICHIGAN

The Department of Postgraduate Medicine of the University of Michigan Medical School, in conjunction with the Wayne University College of Medicine and the Michigan State Medical Society, announces the following postgraduate courses for the autumn, 1939:

1. EXTRAMURAL COURSE

The course will be given in the extramural teaching centers. It is divided into two parts, the first to be given in October, 1939, and the second in April, 1940. The subjects for the course in October are:

Principles in the care of the newborn and premature child.
Management of breech presentation.
Surgery in children.
Liver and gall bladder disease.
Late developments in the use of sulfapyridine, sulfanilamide and prontosil.
Differential diagnosis of pyuria.
Colitis. Types, diagnosis and management.
Heart failure. Its diagnosis and management, with charts illustrating effects of treatment.

Teaching Centers and Local Chairmen

Ann Arbor

Dr. Howard H. Cummings, Ann Arbor

Battle Creek-Kalamazoo, jointly

Dr. Wilfrid Haughey, Battle Creek

Dr. Keith F. Bennett, Kalamazoo

Flint

Dr. Frank E. Reeder, Flint

Grand Rapids

Dr. Vernor M. Moore, Grand Rapids

Lansing-Jackson, jointly

Dr. J. Earle McIntyre, Lansing

Dr. Theophile E. Schmidt, Jackson

Manistee-Traverse City-Cadillac-Petoskey, jointly

Dr. Harlen MacMullen, Manistee

Dr. Edw. F. Sladek, Traverse City

Dr. John F. Gruber, Cadillac

Dr. Gilbert Saltonstall, Charlevoix

Saginaw

Dr. Paul R. Urmston, Bay City

Dr. Oliver W. Lohr, Saginaw

2. DIAGNOSTIC ROENTGENOLOGY

October 30-November 4, The X-ray Diagnosis of Thoracic Diseases, University Hospital, Ann Arbor

This course, which devotes five days to the various aspects of chest diagnosis in which roentgenology plays a part, is intended to offer to the postgraduate student a well-rounded review of the entire subject. The

general principles of radiological and fluoroscopic technic will be presented, although it is not intended that the course will provide technical experience. The importance of considering all of the situations which may be encountered unexpectedly is illustrated richly with examples from actual practice.

3. PSYCHIATRY

November 2 and 3, Neuropsychiatric Institute, Ann Arbor

This course is designed to aid the physician in general practice in the management of a difficult group of cases. Neuropsychiatric disorders, both functional and organic, including etiology, clinical manifestations and therapeutic methods, will be discussed. Problems incident to the administering of care of mental disease by the state and the responsibility of the community in mental hygiene will be considered. Ample clinical material is available and the various types of neuroses, the early manifestation of the major psychoses and the management of individual cases will be demonstrated.

4. DISEASES OF METABOLISM

December 11-16, University Hospital, Ann Arbor

The course is planned to acquaint the practitioner with the fundamental principles of metabolism and their application to the understanding and management of metabolic diseases. The phenomenal advances in biological chemistry and clinical investigation have gone far to explain a number of disease conditions which either have not been understood or for which there was no satisfactory treatment. These conditions include diabetes mellitus, nephritis and edema, obesity, the deficiency diseases, gout and dysfunctions of the parathyroid and the adrenal glands. The material will be presented by means of lectures, demonstrations and selected reading.

Announcement containing complete information about the teaching schedule is available upon request.

DEPARTMENT OF POSTGRADUATE MEDICINE
University of Michigan, Ann Arbor, Michigan

President's Page

COÖPERATION AND UNITY

IF YOU and I can take the above words as a slogan and conform our conduct to them, then and only then, will this next year be a truly successful year for the Michigan State Medical Society.

Before this appears you will have determined whether or not this is the opportune time to challenge the forces which advocate socialized medicine under bureaucratic control, by instituting a plan of our own contriving, designed to satisfy the needs of the low income group and, at the same time, maintain the doctor-patient relation and high professional standards. If you do so decide you have placed upon your executive officers the responsibility of a most difficult task.

But whether you do or not, a distressing European situation is bound to have its repercussions over here, and this next year is likely to be a crucial one for the Society. If we are to carry on successfully it can only be by the coöperation of every unit in the organization.

It is essential that every effort be made by this Society to effectually coöperate with all groups having objectives related to ours. Most important of all, we must stand together and present a united front to all forces both within and without organized medicine, which threaten the integrity of the profession.

Yours, most sincerely,

Burtan D. Corbush

President, Michigan State Medical Society.

Department of Economics

L. FERNALD FOSTER, M.D., Secretary

DISTRIBUTION AND SPECIALIZATION OF PHYSICIANS IN MICHIGAN

INFORMATION concerning the distribution of physicians recently prepared by the Directory Department of the American Medical Association throws considerable new light on the distribution of physicians in Michigan.

The total number of physicians in Michigan was found to be as follows:

In Private Practice.....	4,958
Internes and Residents.....	414
Hospital Service	308
Government Service	64
Not in Private Practice.....	205
Retired and not in Practice.....	193
Total—All Physicians.....	6,142

The classification "In Private Practice" includes the total number of physicians who provide medical services directly to patients either on a full-time or part-time basis. About 80% of the total number of physicians are engaged in the private practice of medicine in Michigan. For the United States as a whole, 81% of the total number of physicians are in private practice.

"Internes and Residents" include all physicians serving internships and residencies in approved hospitals of all types.

The classification "Hospital Service" includes all physicians in hospitals, infirmaries, dispensaries, or teaching clinics. Physicians who are situated at government hospitals without any available indication as to type of their services are included in this classification rather than under "Government Service."

Physicians in "Government Service" include the commissioned officers of the United States Army, Navy, and Public Health Service; full-time officers of the Veterans' Administration; and medical officers of the Indian Field Service. Likewise, physicians with the Civilian Conservation Corp and physicians located at army posts or associated with the United States Government in departments, bureaus, and projects are included.

The two hundred five physicians "Not in

Private Practice," include those who are engaged in work of a professional character, but not in providing medical services directly to patients. Represented here are the faculty members of medical schools, physicians engaged in research or post-graduate work, medical directors of insurance companies, those employed by industrial organizations, those who limit their practice to public health and those who are associated with the various city, county, or state governing bodies.

The classification "Retired and not in Practice" includes all physicians who are retired and those who are no longer in medical practice, such as physicians who practice pharmacy, dentistry, or other occupations exclusively. The relatively small number of such physicians is indicative of the strong desire of physicians to follow their chosen vocation, scarcely being willing to cease practice because of age or disability much less to take up some other occupation.

The question of the extent of specialization has been much discussed in recent years. Much of this discussion has been based on incorrect or incomplete information. The following table presents authoritative and up-to-date information concerning the type of practice engaged in by the physicians in Michigan:

DISTRIBUTION OF PHYSICIANS IN MICHIGAN
ACCORDING TO TYPES OF PRACTICE

Type of Practice	1938		Total
	Limited Special- ists	Special Atten- tion	
S (Surgery)	208	391	599
OALR (Ophthalmology, Otology, Laryngology, Rhinology)	181	31	212
I* (Internal Medicine) ..	216	—	216
Pd. (Pediatrics)	89	72	161
Oph (Ophthalmology) ..	39	20	59
NP (Neurology and Psychiatry)	40	17	57
N (Neurology)	4	3	7
Bact (Bacteriology) ...	—	2	2
D (Dermatology)	36	10	46
Ob (Obstetrics)	4	101	105
G (Gynecology)	1	42	43
ObG (Obstetrics and Gynecology)	76	126	202
CP (Clinical Pathology)	7	2	9

*Source—Directory Department A.M.A.

DEPARTMENT OF ECONOMICS

ALR (Otolaryngology, Rhinology) ..	37	10	47
PH* (Public Health) ..	44	—	44
U (Urology)	55	34	89
IndS (Industrial Surgery)	15	55	70
T (Tuberculosis)	24	14	38
Pr (Proctology)	14	20	34
R (Roentgenology, Radiology)	61	28	89
Or (Orthopaedic Surgery)	23	11	34
Path (Pathology)	18	3	21
P (Psychiatry)	26	3	29
Anes (Anesthesia)	1	12	13
TOTAL SPECIALISTS	1,219	1,007	2,226
GP (General Practitioner)	—	—	3,723
TOTAL PHYSICIANS IN PRACTICE ...			5,949
Retired and not in Practice	—	—	193
TOTAL NUMBER OF PHYSICIANS IN MICHIGAN			6,142

Any classification of physicians according to specialty must lack accuracy because of the absence of clear definitions or standards for specialists. In the American Medical Directory, which is the primary source of information on the subject of specialization, the physicians classify themselves to a large extent.

The customary classifications are "Limited Specialists," which indicates that the physician devotes all of his practice solely to the particular specialty; "Special Attention," which indicates that the physician devotes a portion of his practice in the particular field of specialty—the extent of such specialization may vary all the way from mere wish or interest to an actual devotion of a portion of practice to the limited field with the intention of becoming a limited specialist; and "General Practitioner," indicating the physician who does not claim to be specializing in a particular field of medical practice.

The report of the Committee on the Survey of Medical Services and Health Agencies made to the House of Delegates of the Michigan State Medical Society in 1933 revealed that only about one-half of the physicians who listed themselves as limited specialists were so considered by the Public Relations Committee in their own locality. Likewise, less than one-fourth of the physicians who classified themselves as devoting special attention to certain types of

practice were so considered by the local Public Relations Committee.

As shown in the foregoing table, only 1,219 physicians of the 5,949 in practice may be said to be specialists. In other words, about 20% of the physicians in practice in Michigan are specialists. Compared with a previous report, "Distribution of Physicians in the United States" prepared by the Bureau of Medical Economics of the American Medical Association, 16.4% of the physicians in Michigan were classified as specialists in 1931.

The 1,007 physicians who classified themselves as devoting special attention to particular types of practice should probably be considered as general practitioners so far as their services to the community are concerned.

Improved accuracy in the classification of specialists may be expected in the very near future because of the special examining boards in the various medical specialties. Certification by one of these boards, generally speaking, may be taken as a fair indication of the competence of the physician to claim that he is a specialist. As yet, however, the submission of an application to such examining boards is purely voluntary and cannot be accepted as the sole criterion of ability as a specialist. However, when the certification by the various boards of specialty is generally accepted as the measure of competence for limited specialization, it is conceivable that a much more accurate classification of physicians according to type of practice can be made.

No doubt the American Medical Directory will place more and more reliance on certification by specialty boards, so that at some future date only those physicians who give tangible evidence of specializing in a certain field of medical practice can classify themselves as specialists.

J. D. LAUX.

THANKS

The Council of the Michigan State Medical Society has placed a vote of thanks on its minutes to all who contributed to the extraordinary success of the 1939 M.S.M.S. Convention. The Council is grateful to the officers of the Society, the guest essayists,

the Grand Rapids Committee on Arrangements, the Daily Fellowship Committee, the monitors, the management of the hotels in Grand Rapids, the Grand Rapids Convention Bureau, the management of the Civic Auditorium, the Scientific and technical exhibitors, the efficient Press Relations Committee, Radio Station WOOD, the Woman's Auxiliary, the Section Officers, our friends who sponsored lectures, the management of Blythefield Country Club, and not the least to all the members who by the hundreds took time off from their busy practices to attend the 1939 Convention.

Thanks, again!

GOVERNOR'S PROCLAMATION

WHEREAS, more than 2,000 doctors of medicine will meet during the week of September 18-23, in Grand Rapids for the Annual Convention of the Michigan State Medical Society, and

WHEREAS, ways and means for a wider distribution of medical services of good quality will be planned by the Michigan medical profession during this week, with major attention devoted to a voluntary group medical care plan to provide medical services for our residents and their families, and

WHEREAS, it is of the utmost importance that the health and well-being of the people of Michigan be steadily improved by making available the excellent medical and health facilities of our state,

THEREFORE, I, Luren D. Dickinson, Governor of Michigan, designate the period of September 18-23 as

"Michigan Medical Service Week" within this State and urge the people of Michigan, all agencies concerned with health, and all media of publication, including the newspapers, the radio and the motion picture industry, to support the medical service program developed by the medical profession of the State of Michigan for our people.

Given under my hand and the Great Seal of the State, this Eleventh day of September, in the Year of our Lord, One Thousand Nine Hundred and Thirty-Nine, and of the Commonwealth, the One Hundred Third.

LUREN D. DICKINSON,
Governor.

APPROVED PRODUCTS

TECHNICAL exhibits at Michigan State Medical Society conventions in every respect, must conform to the requirements of Councils and Committees of the American Medical Association. This is a definite rule for exhibitors at our State Society meetings. It results in a high-class, ethical show, at which are displayed only those pharmaceutical supplies and medical and surgical appurtenances which have been investigated and have official approval by American Medical Association Councils.

A number of firms, which are detailing Michigan physicians, have products which have not been presented to the American Medical Association for approval. A number of these firms have requested space in the Michigan State Medical Society Technical Exhibit, but have had to be refused. Physicians will help their patients, and their County and State Medical Societies, if they insist on purchasing only Council-approved products, and refer to the American Medical Association all firms which attempt to sell unapproved products.

DUES

SINCE we are so prone nowadays to consider our dues in terms of value received, it behooves doctors of medicine to take account of stock in their medical organization. Physicians, by virtue of their professional activities and contacts, are often forced to be "joiners" of various organizations. They are compelled, through civic-mindedness, to join Chambers of Commerce, Service and Luncheon Clubs and Fraternal and Social groups. In their desire to keep abreast of modern medical science and specialty advances, many physicians are members of special national and state medical organizations. All of these demand an appreciable outlay of funds as membership requirements.

These various organizations, to one or more of which nearly every physician at some time or other subscribes, play a very small and often no part whatever in maintaining the traditions of medical practice. They enhance to only a slight degree, the physician's personal success or his value to his community.

Only one organization serves intimately

the doctors of medicine in his state; only one organization maintains a personnel whose activities are devoted wholly to a protection of the physician's interests; an organization which is constantly alert to the intrusion of lay and political interests into the field of medical practice. This organization is the State Medical Society. Its whole endeavor is to enhance, for the practitioner, the science and practice of medicine in all their aspects.

Let us, therefore, compare our State Society dues with those of our other memberships. How do they compare in actual dollars and cents? How do they compare in terms of real value received? Doubtless such a comparison will call to our attention very vividly the fact that our State Society dues are really very moderate.

Such a thoughtful comparison may bring to our realization the fact that the one organization which is concerned with our interests is our own Michigan State Medical Society.

THINK BEFORE YOU SPEAK

DR. H. G. Stetson and Dr. John E. Moran of Greenfield, Massachusetts, have published the result of a survey in which a study was made of some 35,000 suits of alleged malpractice. It disclosed that 60 per cent of the suits were the result of inopportune remarks made by physicians because of their lack of knowledge concerning the facts or because of personal animosity or jealousy; that 20 per cent resulted from counter suits; that 10 per cent were due to failure to use the x-ray; that the remaining 10 per cent were due to other causes, such as newspaper articles, cults, negligence of nurses or employees of physicians, alcoholism (rare), and failure to use a method of treatment which is used by the majority or a respectable minority (also rare). The report emphasized the belief that the prevention of suits is the best defense against them.—From Preface to "The Roentgenologist in Court," by C. W. Donaldson.

THE MICHIGAN STATE MEDICAL SOCIETY AND THE STATE HEALTH COUNCIL

On August 25, the council of the Michigan State Medical Society and the State Health Council met at Mackinac Island. This was the first meeting of

these two groups. It brought together two outstanding agencies whose objectives are the same—agencies whose time is devoted to the development of the finest type of medical care in Michigan and the resulting good health of our citizens.

The meeting was devoted to an earnest expression of coöperative effort between the two groups. Dr. H. Allen Moyer, Commissioner of Health, sounded the keynote of coöperation. He was supported by Dr. Albert McCown, Deputy Commissioner of Health, Dr. Henry Luce, President of the Michigan State Medical Society, and Dr. Paul R. Urmston, Chairman of the Council.

With the rapid development of scientific medicine and the expansion of public health activities, it is obviously apparent that the welfare of our citizens can be served only by a sincere coöperative effort of organized medicine and public health agencies. The private practitioner of medicine has and always will be fundamental in the promulgation and administration of good public health principles. Only with sympathetic health officials and conscientious practitioners of medicine can the public health be effectively maintained—in Michigan we have both.

The Mackinac meeting marked a new era of co-operation between two groups whose objectives are the same and whose combined, consistent efforts bespeak a great forward step in Michigan's public health.

RADIOLOGISTS AND THE WAGNER BILL

(Journal American Medical Association)

Radiologists are especially interested in the feature of the Wagner bill which proposes the "construction of 500 diagnostic centers 'as an initial development' at a cost of \$30,000 each. These would not only assist the state cancer hospital in cancer diagnosis and treatment but would also serve 'for diagnosis and therapy which would be beyond the resources that the local physicians of the neighborhood normally would have for equipment in their offices.' Thus provisions are made for about ten centers in each state to serve, presumably without charge and regardless of ability to pay, all citizens whose attending physician desires radiological or pathological procedures in diagnosis."

Mr. Mac F. Cahal, executive secretary of the Inter-Society Committee for Radiology, in the Special Bulletin from which the foregoing statements were quoted, further says:

"Is there any evidence whatever to justify the construction of 500 free diagnostic centers to duplicate existing facilities? There is no way of knowing the exact number of roentgen installations in this country today. We do know, however, that there are more than 2,000 radiological specialists equipped and trained to give diagnostic consultation. We do know that there are more than 6,000 hospitals having roentgen departments. And we do know that 98.5 per cent of the people residing within the United States live within 30 miles of a hospital. . . .

"If the Wagner bill becomes a law it will inevitably supplant competent private practitioners with salaried political appointees. Does the record of the federal state offer any indication that this system would result in anything but inferior service to the sick, rich and poor? Although the bill does not provide for compulsory health insurance, it opens, by means of governmental subsidies and consequent government control, an even more direct road to state medicine than would compulsory insurance."

**MICHIGAN'S DEPARTMENT
OF HEALTH**

HENRY A. MOYER, M.D., Commissioner
LANSING, MICHIGAN

MACKINAC ISLAND CONFERENCE

Medicine and public health joined hands in seeking the mutual objective of making available the science of medicine to the people of Michigan at the third annual Mackinac Island Conference of public health workers held at the Grand Hotel August 25 and 26.

Coöperation, as the theme of the conference, was expressed in the joint meeting of the Council of the Michigan State Medical Society and the State Council of Health, the first time in history that these executive representatives of medicine and public health have met together. These groups met at a luncheon session on Friday, August 25, to discuss mutual policies and again at the banquet in the evening honoring Dr. H. Allen Moyer, State Health Commissioner. Preceding the dinner, a reception was held for Doctor and Mrs. Moyer.

Speaking at the evening banquet as toastmaster, Dr. Albert McCown, deputy state health commissioner, outlined the possibilities for great advances in promoting the health of the people through close collaboration of official health agencies and the practitioners of medicine. "Our objectives are the same, though our techniques may differ," he declared.

Dr. Henry Luce, president of the Michigan State Medical Society, responded for the medical profession. "We must forget our differences as groups and seriously consider what our public expects," he said. "The public expects service. We must extend to them the ultimate values of the science of medicine. We are the distributors of the science of medicine. United under the banners of the science of health and the science of medicine, we will go forward. This spirit must be carried on down through all counties and local units."

Dr. John L. Lavan, secretary of the State Council of Health, responded in the same tempo, assuring the conference of the coöperation of official health agencies in securing the mutual objectives of medicine and public health. Dr. Burton R. Corbus, president-elect of the State Medical Society, gave a brief review of the historic work of Dr. William Beaumont. In this he had an appropriate setting, for it was on Mackinac Island that Dr. Beaumont carried on his important experiments on Alexis St. Martin, the young French Canadian, which were to contribute so much to medicine's knowledge of the physiology of digestion.

Dr. Moyer, honor guest of the evening, paid tribute to the loyalty and efficiency of his staff in the Michigan Department of Health. Full coöperation of the Department would be forthcoming, he declared, in promoting and improving the public health of Michigan's people.

A roundtable session of public health personnel was held Saturday morning for the discussion of the state's poliomyelitis program. Dr. McCown acted as chairman. Speakers included Dr. Moyer, Dr. A. W. Newitt, director of the Bureau of Epidemiology, and Dr. Carl E. Badgley, president of the Michigan Orthopedic Society.

Arrangements for the Mackinac Island Conference were under the direction of Dr. Carleton Dean, director of District Health Department No. 3 and member of the State Council of Health.

GOITER PREVENTION PROGRAM

A state-wide educational program to promote the use of iodized salt as a preventive of simple goiter will be sponsored during the month of October by the Michigan Department of Health, the Iodized Salt Committee of the Michigan State Medical Society and the Salt Producers Association of Michigan.

The educational program will be carried on principally through the public schools with the approval and assistance of the State Department of Public Instruction. The Iodized Salt Committee and the Michigan Department of Health have prepared a four-page folder which will be distributed to parents through the more than a million children in Michigan's schools. The salt companies and the wholesale and retail grocers will also coöperate through their sales outlets in advertising and promoting the sales of iodized salt. The Salt Producers Association has provided part of the funds for the publication of literature which will be used in the educational program.

Health officers in areas having full time health departments will serve as clearing agencies for the local programs, securing the coöperation of school administrators in the distribution of literature. In counties and cities having no full time health officer, the Michigan Department of Health will work directly through school commissioners and superintendents in securing the distribution of literature in the schools.

Coincident with the distribution of iodized salt literature, publicity will be released through the newspapers and periodicals of the state. Physicians, health officers and nurses who wish copies of the folder "Michigan Children Need Iodized Salt" for distribution may obtain them upon request to the Michigan Department of Health at Lansing.

**NURSING INSTITUTES ON
SYPHILIS CONTROL**

The Bureau of Public Health Nursing, in coöperation with the Michigan State Nurses Association and the University of Michigan, is sponsoring a series of institutes for public health nurses on syphilis control. The institutes will be held at Marquette, September 26 and 27; at Bay City, September 29 and 30; and at Traverse City, October 3 and 4.

The institutes will consider the medical and public health aspects of syphilis control, the psychology of approach in the control of syphilis, and the function of the nurse in syphilis control. Speakers will include Dr. T. E. Gibson, director of the Venereal Disease Division of the Michigan Department of Health; Miss Ruth Kahl, R.N., regional public health nursing consultant for the U. S. Public Health Service; Dr. M. Cooperstock of the Northern Michigan Children's Clinic; and Dr. R. Dixon, venereal disease consultant for the Michigan Department of Health.

POLIOMYELITIS PEAK REACHED

Michigan's 1939 outbreak of poliomyelitis reached its peak the week ending August 26 when 114 cases of the disease were reported. Since that time case reports have dropped off rapidly, declining to 102 the week ending September 2 and to 62 the week ending September 9. It is expected that this declining trend will continue throughout September with the situation returning to normal by the end of the month.

A total of 555 cases of poliomyelitis has been reported during the 1939 outbreak through the week

ending September 9. During August, the high month of the outbreak, 392 cases were reported, exceeding the incidence of the disease during the same month of 1931 when the state's greatest outbreak occurred. In the 1931 outbreak September was the high month, 577 cases occurring during the month and 1,137 cases during the entire year.

Of the 482 cases of poliomyelitis reported during July and August this year, 326 occurred in Detroit. Wayne, Oakland and Saginaw counties have been hardest hit by the 1939 outbreak. A total of 34 counties, however, have reported one or more cases of the disease.

The Michigan Polimyelitis Commission, organized to provide consultant service in the diagnosis and orthopedic care of poliomyelitis cases, reports that between August 8 and September 9 this service has been provided in 122 cases. Of these, 91 were for diagnostic consultant service and 31 for orthopedic consultant service.

REGIONAL CONFERENCES OF HEALTH DEPARTMENTS

The first of the fall series of Regional Conferences of State and Local Health Departments was held at West Branch, September 8, with Dr. Sue Hurst Thompson, director of District Health Department No. 2, as host. Members of the staffs of Grand Traverse County Health Department and District Health Departments Nos. 1, 2, 3, and 4 were present.

The conference was devoted to discussion and correlation of state and local health services related to maternal and child health, public health dentistry and health education. The conference was under the direction of Dr. Albert McCown, deputy health commissioner in charge of local health service. Speakers included Dr. Lillian R. Smith, Dr. William R. Davis and Miss Marjorie Delevan.

Regional Group No. 2 including Isabella, Midland, Mecosta-Osceola, Bay, Wexford and District No. 7 health departments will meet at Midland for the second conference in the series. Muskegon, Mason, Sault Ste. Marie and Battle Creek will be centers for other forthcoming conferences.

RABIES QUARANTINES TERMINATED

Rabies quarantines still existing in five Michigan counties at the beginning of September will all be terminated by the first of October, according to the Michigan Department of Agriculture. Counties still having quarantines during September include Oakland, Berrien, Livingston, Saginaw and Huron. During the summer months while Michigan was experiencing the heaviest incidence of rabies in animals in recent years ten counties were under quarantine.

VAN BUREN COUNTY HEALTH OFFICER

Dr. Merle R. French, former health commissioner of Courtland County, New York, has been appointed as director of the Van Buren County Health Department. Dr. French's appointment became effective September 1. His headquarters will be at Paw Paw.

WATER PURIFICATION CONFERENCE

The Seventeenth Annual Michigan Water Purification was held in Lansing September 20 to 22 under

the sponsorship of the Michigan Department of Health. Held in conjunction with this conference was the meeting of the Michigan Section of the American Water Works Association. These organizations have as their objective the improvement of public water supplies throughout the state.

EXHIBIT M.S.M.S. MEETING

The Michigan Department of Health sponsored an exhibit at the annual meeting of the Michigan State Medical Society in Grand Rapids September 19 to 22.

The exhibit featured the work of the Department in its investigations of pertussis immunization, epidemiological service in the control of smallpox and poliomyelitis, and its pneumonia serum program. The organization of county and district health departments throughout the state was also demonstrated. The work of the Department in coöperation with the State Stream Control Commission which has demonstrated the cause and methods of treatment for schistosome dermatitis with its survey party during the past summer was also shown. A service map indicated the extensive activities of the Department in the fields of maternal and child health.

Among Our Contributors

Dr. Arthur W. Frisch attended the University of Wisconsin from 1927 to 1937, during which time he received his A.B., M.D., and also Ph.D. in Medical Bacteriology. Since 1937, he has been Instructor in Medical Bacteriology and Clinical Pathology at the Wayne University College of Medicine under Dr. Harry L. Clark.

* * *

Dr. F. L. Graubner graduated from Wayne University College of Medicine, class of 1934. He was interne at Harper Hospital in 1935 and later on the staff at Oaklawn Hospital, Marshall, Michigan, and Leila Post Hospital, Battle Creek. He is now in general practice at Marshall, Michigan.

* * *

Dr. V. W. Jensen is a graduate of Illinois College, received his M.S. in 1917 from the University of Chicago, and M.D. from Rush Medical School in 1919. He served a year's internship at the St. Louis City Hospital and a year at Children's Memorial Hospital, Chicago. At the present, he is practicing at Shelby, Michigan.

* * *

Dr. Harold B. Rothbart was graduated from the University of Toronto Medical School in 1930. He is visiting Physician, Children's Hospital, Detroit, and Attention Pediatrician, Receiving and Mount Carmel Hospitals, Detroit. Dr. Rothbart is also Instructor in Clinical Pediatrics, Wayne University, and is a member of the American Board of Pediatrics. He is Former Senior Instructor in Pediatrics of the University of Michigan Medical School.

CORRESPONDENCE

July 26, 1939

Dr. L. Fernald Foster,
Secretary, Michigan State Medical Society,
Lansing, Michigan.
Dear Doctor Foster:

The Federal Trade Commission has for some years been rather active in its efforts to protect the public against harmful and useless nostrums, and in connection with these activities has received aid from officers of constituent state and component county medical societies and from individual members of those societies who have appeared as witnesses before referees of the Federal Trade Commission for the purpose of testifying as to the lack of merit of such nostrums. You have no doubt heard from certain sources that the American Medical Association and its constituent state medical associations have failed to cooperate with the federal government, when as a matter of fact the Association has for many years done everything that it could do to be helpful to any agency of the federal government that has called on it for any assistance that the Association could render, and I have known many instances in which constituent state associations have taken advantage of opportunities that have offered to be helpful to the federal government.

Under the provisions of the new food and drug act certain important new duties have devolved on

the Federal Trade Commission and apparently that agency is determined to discharge these duties as fully as possible. It is the intention of the officers and members of the administrative personnel of the American Medical Association to be as helpful as possible to the Federal Trade Commission in connection with this matter, and I bespeak the active assistance of the officers of the constituent state medical associations for the Federal Trade Commission in this connection.

While it is true that this Commission is not provided with funds that will enable the Commission to compensate fully physicians who appear as witnesses at hearings conducted in the several states, I am very sure that the members of the medical profession generally will be glad to do what they can to assist the Commission in restraining violations of the laws pertaining to foods and drugs and to lessening of injurious effects of the production and sale of worthless and harmful nostrums.

Dr. K. E. Miller, Senior Surgeon of the United States Public Health Service, has been detailed to the Federal Trade Commission for the purpose of assisting the Commission in its work pertaining to the matters referred to in this letter. I am very sure that Doctor Miller and the members of the Federal Trade Commission will be grateful for any cooperation that the secretaries of the constituent state medical associations will extend.

Very sincerely yours,

OLIN WEST, Secretary
American Medical Association.

INTERNATIONAL MEDICAL ASSEMBLY

Inter-State Postgraduate Medical Association of North America

Palmer House, Chicago, Illinois — OCTOBER 30, 31, NOVEMBER 1, 2, 3, 1939

Pre-Assembly Clinics, October 28; Post-Assembly Clinics, November 4, Chicago Hospitals

President, Dr. George W. Crile; President-Elect, Dr. Chevalier Jackson; Chairman Program Committee, Dr. George W. Crile; Managing Director, Dr. William B. Peck; Secretary, Dr. Tom B. Throckmorton; Director of Exhibits, Dr. Arthur G. Sullivan; Treasurer and Director of Foundation Fund, Dr. Henry G. Langworthy; Chairman, Chicago Committees, Dr. Robert H. Hayes

ALL MEDICAL MEN AND WOMEN IN GOOD STANDING CORDIALLY INVITED

Intensive Clinical and Didactic Program by World Authorities

The following is the list of members of the profession who will take part on the program:

Irvin Abell, Louisville, Ky.
Alfred W. Adson, Rochester, Minn.
John Alexander, Ann Arbor, Mich.
Walter C. Alvarez, Rochester, Minn.
Charles R. Austrian, Baltimore, Md.
W. Wayne Babcock, Philadelphia, Pa.
James H. Black, Dallas, Texas
Robert A. Black, Chicago, Ill.
Ralph C. Brown, Chicago, Ill.
Richard B. Cattell, Boston, Mass.
James C. Carr, Chicago, Ill.
Russell L. Cecil, New York, N. Y.
Warren W. Cole, Chicago, Ill.
C. Donald Creevy, Minneapolis, Minn.
George W. Crile, Cleveland, Ohio
William R. Cubbins, Chicago, Ill.
Elliott C. Cutler, Boston, Mass.
Walter E. Dandy, Baltimore, Md.
Loyal Davis, Chicago, Ill.
Joseph B. DeLee, Chicago, Ill.
Claude F. Dixon, Rochester, Minn.
Nicholson J. Eastman, Baltimore, Md.
Eldridge L. Eliason, Philadelphia, Pa.
John F. Erdmann, New York, N. Y.
Frederick H. Falls, Chicago, Ill.
Reginald Fitz, Boston, Mass.

John R. Fraser, Montreal, Canada
Alvah H. Gordon, Montreal, Canada
Everts A. Graham, St. Louis, Mo.
Howard K. Gray, Rochester, Minn.
Donald Guthrie, Sayre, Pa.
Russell L. Haden, Cleveland, Ohio
William D. Haggard, Nashville, Tenn.
Verne C. Hunt, Los Angeles, Calif.
Andrew C. Ivy, Chicago, Ill.
Elliott P. Joslin, Boston, Mass.
Robert W. Keeton, Chicago, Ill.
William J. Kerr, San Francisco, Calif.
Herman L. Kretschmer, Chicago, Ill.
Frank H. Lahey, Boston, Mass.
Philip Lewin, Chicago, Ill.
William E. Lower, Cleveland, Ohio
Drew W. Luten, St. Louis, Mo.
James C. Magee, Washington, D. C.
Ross T. McIntire, Washington, D. C.
James S. McLester, Birmingham, Ala.
Harry Mock, Chicago, Ill.
Emanuele Momigliano, Rome, Italy
John J. Moorhead, New York, N. Y.
George P. Muller, Philadelphia, Pa.
John H. Musser, New Orleans, La.
Emil Novak, Baltimore, Md.

Alton Ochsner, New Orleans, La.
Eric Oldberg, Chicago, Ill.
Thomas G. Orr, Kansas City, Mo.
James E. Paullin, Atlanta, Ga.
Dallas B. Phemister, Chicago, Ill.
Charles H. Phifer, Chicago, Ill.
Fred W. Rankin, Lexington, Ky.
William F. Rienhoff, Baltimore, Md.
Thomas M. Rivers, New York, N. Y.
Albert D. Ruedemann, Cleveland, Ohio
Roy W. Scott, Cleveland, Ohio
Francis E. Senear, Chicago, Ill.
Elmer L. Sevringhaus, Madison, Wis.
Gerald S. Shibley, Cleveland, Ohio
Harry P. Smith, Iowa City, Iowa
Albert M. Snell, Rochester, Minn.
Tom D. Spies, Cincinnati, Ohio
Cyrus C. Sturgis, Ann Arbor, Mich.
Walter Timme, New York, N. Y.
John A. Toomey, Cleveland, Ohio
Waltman Walters, Rochester, Minn.
Soma Weiss, Boston, Mass.
Harold G. Wolff, New York, N. Y.
Wallace M. Yater, Washington, D. C.
Hugh H. Young, Baltimore, Md.
Italo F. Volini, Chicago, Ill.

Hotel Headquarters
PALMER HOUSE

HOTEL RESERVATIONS

Hotel Committee, Dr. J. P. O'Neil, Chairman,
30 N. Michigan Ave., Chicago, Ill.

A program has been mailed to every member of the medical profession in good standing in the United States and Canada.

Any member of the profession in good standing who has not received a program please write the Managing Director at once and a copy will be mailed.

Comprehensive Scientific and Technical Exhibit. Special Entertainment for the Ladies.

◆ General News and Announcements ◆

The annual meeting of the American Academy of Ophthalmology and Otolaryngology will be held in Chicago, October 8 to 13, at the Palmer House.

* * *

Lowell S. Selling, M.D., Detroit, is author of an original article which appeared in the *Journal of the A.M.A.*, September 9 issue, entitled "Abnormalities of the Eye in Traffic Court Cases."

* * *

"Regulations for the Control of Communicable Diseases," a 36-page booklet published by the Michigan Department of Health, is available upon request. Write the State Health Commissioner at Lansing, Michigan.

* * *

Members of the State Society will do THE JOURNAL mailing department a great service by advising of changes of address promptly. Otherwise, THE JOURNAL may be discontinued, since the Post Office will report back "No longer there."

* * *

The sympathy of the medical profession is extended to Dr. Clarence A. Kretzschmar, Detroit, in the death of his wife. Mrs. Helen Kretzschmar was drowned when she fell off a boat at the Detroit Yacht Club on September 1, 1939. Surviving are Dr. Kretzschmar and two children, John and Margaret.

* * *

Dr. Don Marshall, formerly assistant Professor of Ophthalmology at the University of Michigan and for the past two years head of the Department of Ophthalmology, Geisinger Hospital, Danville, Pennsylvania, has announced his association with Dr. E. P. Wilbur and Dr. R. B. Fast of Kalamazoo, in practice limited to diseases of the eye.

* * *

The Twelfth Graduate Fortnight of the New York Academy of Medicine will be devoted to "The Endocrine Glands and Their Disorders." The symposium will be held at the Academy of Medicine Building, 5th Avenue at 103rd Street, New York City, October 23 to November 3, 1939. Registration \$5.00. Program on request.

* * *

Mrs. Emma Anderson, wife of Dr. William K. Anderson, Saginaw roentgenologist, died on August 17, 1939. She was an active member of the Woman's auxiliary of the Saginaw County Medical Society. She was born in 1898 and married Dr. Anderson in Flint in 1925. She is survived by her husband, five children, her mother, five brothers and two sisters.

* * *

Joint Meeting of the Advisory Council on Health and M.S.M.S. Council: At the invitation of the State Advisory Council of Health, members of The Council and officers of the Michigan State Medical Society held a joint session at Mackinac Island on August 25. Coöperative effort and joint projects were recommended and discussed at a luncheon meeting. A reception in honor of the new State Health Commissioner, H. Allen Moyer, M.D., was given by Henry A. Luce, M.D., President of the Michigan State Medical Society. This was followed by a dinner and evening meeting of the two groups and the health personnel of the Upper Peninsula and the upper portion of the Lower Peninsula of Michigan, numbering in excess of 200.

The Michigan Attorney General has ruled in a formal opinion that the new Welfare Laws require the State to match expenditures made by the counties not only for general relief, such as provision of food, fuel and shelter, but for medical services as well. The opinion said the law defines medical services as home or office attendance by a physician, dental, pharmaceutical services and besides nursing in the home. It does not include hospitalization.

* * *

Afflicted Child Commitments for the month of August, 1939: Total cases 436, of which 87 went to University Hospital and 349 to miscellaneous hospitals. Of the above, Wayne County sent 20 to University Hospital and 64 to miscellaneous hospitals, for a total of 84.

Crippled Child for August, 1939: Total cases 95, of which 20 went to University Hospital and 75 to miscellaneous hospitals. Of the above, Wayne County sent three to University Hospital and 47 to miscellaneous hospitals, for a total of 50.

* * *

The Social Security Act which was amended on August 10, 1939, contains several new provisions relative to Federal Old Age Insurance:

The tax rate continues to be 1 per cent during 1939, '40, '41 and '42.

Beginning in 1940, special refund will be made to employees of taxes which they pay on wages in excess of \$3,000 received during a single calendar year from more than one employer. Wages received after attaining age 65 are taxed, retroactive to January 1, 1939; a receipt for the employee is to be furnished by the employer—a written statement showing the wages paid by the employer after December 1, 1939.

For additional information write Federal Old Age Insurance Manager, Lansing, Michigan, Field Office.

* * *

The Grand Rapids Committee on Arrangements for the 1939 M.S.M.S. Convention performed an extraordinary job of hospitality. A good slice of the success of the meeting is creditable to the efficient and ubiquitous performance of these committee members: Drs. G. Howard Southwick, Chairman; Don B. Cameron, Wm. J. Butler, R. H. Denham, Torrance Reed, Ray Van Bree, Wm. A. Hyland, N. S. Vann, A. B. Smith, A. R. Woodburne, R. DeMol, Don Flynn, Chas. H. Frantz, Jack Hoogerhyde, and R. C. Breecce.

The Grand Rapids physicians who served on the Daily Fellowship Committee were: Drs. Frank Boet, J. D. Brook, M. B. Tidey, W. B. Mitchell, Lynn Ferguson, Charles V. Crane, A. V. Wenger and J. C. Foshee.

The monitors were: Drs. V. Stover, H. Van-Belois, M. Shellman, G. DeBoer, R. V. Allen, P. Northouse, J. Hoogerhyde, F. Brace, D. DeVries, M. Ballard, Carl Beeman, R. Eaton, J. DePree, G. Winter, J. W. Phillips, Gayle H. Mehney, L. C. Carpenter, Jr., F. A. Adams, Charles Bell, Jr., Henry W. Clapp, Wm. L. Bettison, L. Paul Ralph, Mark W. Dick, Jerome Webber, Ruth Herrick, A. R. Woodburne, H. M. Blackburn, and A. M. Moll.

GENERAL NEWS AND ANNOUNCEMENTS

Dr. M. B. Landers and his associates at the Lincoln Hospital, Detroit, have performed a valuable service in recently defending the prerogatives of recognized medical institutions to control the hospital service furnished patients. We refer to the case tried before the Honorable Judge John Maher in Records Court, which was another onslaught by sub-standard healers who, with everything to gain, again were trying to better themselves at the expense of good public health and medical care. A patient does not "hire a room" in a hospital. He purchases *hospital service* and the hospital authorities responsible for that service control the policies, of the institution, including the right to decide who shall and who shall not attend patients there. This legal precedent set in the Hurley Hospital case in Flint last year, was upheld by Judge Maher upon the testimony offered by Dr. Landers.—*Detroit Medical News*, August 28.

* * *

PROGRAM INTERNATIONAL MEDICAL ASSEMBLY

Inter-State Postgraduate Medical Association of
North America

October 30, 31, November 1, 2, and 3, 1939

Pre-assembly Clinics, October 28, Post-assembly
Clinics, November 4, Chicago Hospitals
CHICAGO, ILLINOIS

Monday, October 30

8:00 A.M.

Diagnostic Clinics by: Dr. Walter C. Alvarez, Rochester, Minn.; Dr. Philip Lewin, Chicago; Dr. Soma Weiss, Hersey, Boston, Mass.; Dr. Fred W. Rankin, Lexington, Ky.; and Dr. John Alexander, Ann Arbor.

1:00 P.M.

Diagnostic Clinics by: Dr. Dallas B. Phemister, Chicago, and Dr. Russell L. Haden, Cleveland Clinic, Cleveland.

Address: "Surgical Aspects of Peptic Ulcer," Dr. Eldridge L. Eliason, Philadelphia.

Address: "Symptoms and Diagnosis of Obscure Fever," Dr. James G. Carr, Chicago.

Address: "Surgical Treatment of Gall-Stones," Dr. Elliott C. Cutler, Boston.

Address: "Medical Treatment of Liver Diseases," Dr. Albert M. Snell, Rochester, Minn.

Address: "Infections of the Upper Urinary Tract," Dr. C. Donald Creevy, Minneapolis, Minn.

7:00 P.M.

Address: "Allergy as a Factor in General Medicine," Dr. James H. Black, Dallas.

Address: "Management of Ileostomy and Colostomy," Dr. Richard B. Cattell, Boston, Mass.

Address: "Use of Hormones in Obstetrics," Dr. Frederick H. Falls, Chicago.

Address: "Abdominal Pain in Extra-Abdominal Origin," Dr. John H. Musser, New Orleans.

Address: "How Can High Mortality Rate from Skull Fractures be Reduced?," Dr. Harry Mock, Chicago.

Address: "Treatment of Pellagra and Associated Deficiencies," Dr. Tom D. Spies, Cincinnati.

Tuesday, October 31

8:00 A.M.

Diagnostic Clinics by: Dr. James E. Paullin, Atlanta; Dr. William R. Cubbins, Chicago; Dr. Reginald Fitz, Boston, Mass.; Dr. Eric Oldberg, Chicago; and Dr. Robert W. Keeton, Chicago.

Noon Intermission

1:00 P.M.

Diagnostic Clinics by: Dr. W. Wayne Babcock, Philadelphia, and Dr. Charles R. Austrian, Baltimore.

Address: "Anomalies of the Lower Urinary Tract," Dr. Hugh H. Young, Baltimore.

Address: "The Physicians' Interest in Gall-Bladder Disease," Dr. Alvah H. Gordon, Montreal.

Address: "Indications for Cesarean Section," Dr. Nicholson J. Eastman, Baltimore.

Address: "Rupture of Intervertebral Disks as a Cause of Low Back Pain and Chronic Recurring Sciatica," Dr. Alfred W. Adson, Rochester, Minn.

Address: "Cerotherapy in the Treatment of Pneumonia," Dr. Gerald S. Shibley, Cleveland.

7:00 P.M.

Address: "Exophthalmos," Dr. Albert D. Ruedemann, Cleveland.

Address: "Medical Treatment of Peptic Ulcer," Dr. Ralph C. Brown, Chicago.

Address: "The Management of Intestinal Obstruction," Dr. Thomas G. Orr, Kansas City.

Address: "Migraine," Dr. Harold G. Wolff, New York.

Address: "Operability of Carcinoma of the Stomach," Dr. Verne C. Hunt, Los Angeles.

Address: "The Present Status of Transurethral Resection," Dr. Herman L. Kretschmer, Chicago.

Wednesday, November 1

8:00 A.M.

Diagnostic Clinics by: Dr. William F. Rienhoff, Baltimore; Dr. Robert A. Black, Chicago; Dr. Wallace M. Yater, Washington, D. C.; Dr. Howard K. Gray, Rochester, Minn.; Dr. Loyal Davis, Chicago.

1:00 P.M.

Diagnostic Clinics by: Dr. Frank H. Lahey, Boston; and Dr. Elliott P. Joslin, Boston.

Address: "Treatment of Acute Spreading Peritonitis Following Ruptured Appendix," Dr. William D. Haggard, Nashville.

Address: "Newer Approach to the Etiology and Treatment of Angina Pectoris," Dr. William J. Kerr, San Francisco.

Address: "Carcinoma of the Lung," Dr. Evarts A. Graham, St. Louis.

Address: "Dysmenorrhea," Dr. John R. Fraser, Montreal.

Address: "The Hormones of the Gastro-Intestinal Tract," Dr. Andrew C. Ivy, Chicago.

ASSEMBLY DINNER, 7:00 P.M.

Dr. George W. Crile, President of Inter-State Postgraduate Medical Association of North America, Master of Ceremonies.

Addresses by:

Major General James C. Magee, Surgeon-General, U. S. Army, Washington, D. C.

Major General Ross T. McIntire, Surgeon-General, U. S. Navy, Washington, D. C.

Thursday, November 2
8:00 A.M.

Diagnostic Clinics by: Dr. Italo F. Volini, Chicago; Dr. John J. Moorhead, New York; Dr. Roy W. Scott, Cleveland; Dr. John F. Erdmann, New York, and Dr. Walter Timme, New York.

Noon Intermission
1:00 P.M.

Diagnostic Clinics by: Dr. Francis E. Senear, and Dr. Walter E. Dandy, Baltimore.

Address: "Chemotherapy in the Treatment of Pneumonia, Dr. Russell L. Cecil, New York.

Address: "Clinical and Biological Problems of the Irradiation of the Ovary," Professor Dott. Emanuele Momigliano, Rome, Italy.

Address: "The Clinical Use of Digitalis," Dr. Drew W. Luten, St. Louis.

Address: "Interrelation of the Organs of Internal Secretion," Dr. Elmer L. Sevringhaus, Madison, Wis.

Address: "Vascular and Abdominal Surgery," Dr. Charles H. Phifer, Chicago.

7:30 P.M.

Address: "Prevention and Treatment of Virus Disease," Dr. Thomas M. Rivers, New York.

Address: "Stricture of the Common and Hepatic Ducts," Dr. Waltman Walters, Rochester, Minn.

Address and Movie: "Transplantation of the Ureters into the Recto-Sigmoid and Cystectomy for Malignant Tumor of the Bladder," Dr. William E. Lower, Cleveland.

Address: "Management of the Menopause," Dr. Emil Novak, Baltimore.

Address and Movie: "The Distended Colon; Its Medical and Surgical Management," Dr. Claude F. Dixon, Rochester, Minn.

Address and Movie: "Fifty Years of Eclampsia, Placenta Previa, and Cesarean Section," Dr. Joseph B. DeLee, Chicago.

Friday, November 3
8:00 A.M.

Diagnostic Clinics by: Dr. Warren W. Cole, Chicago; Dr. James S. McLester, Birmingham; Dr. Irvin Abell, Louisville; Dr. Cyrus C. Sturgis, Ann Arbor, and Dr. George W. Crile, Cleveland.

1:00 P.M.

Diagnostic Clinics by: Dr. George P. Muller, Philadelphia, and Dr. Alton Ochsner, New Orleans.

Address: "The Management and Treatment of Scarlet Fever," Dr. John A. Toomey, Cleveland.

Address: "Diagnosis of Diseases of the Thyroid Gland," Dr. Donald Guthrie, Sayre, Pa.

Address: "The Jaundiced Bleeder; Control of Hemorrhage with Special Reference to Vitamin K Therapy," Dr. Harry P. Smith, Iowa City, Ia.

The following members of the Michigan State Medical Society received certificates of Associate Fellowship in Postgraduate Education at the 73rd Annual Convention of the Michigan State Medical Society, September, 1938. Certificates are awarded to physicians having completed certain specified postgraduate medical education sponsored by the Committee on Postgraduate Medical Education of the Michigan State Medical Society.

Hugo A. Aach, M.D., Kalamazoo; Nelson Abbott, M.D., Marshall; James Robert Adams, M.D., Dearborn; Raphael William Albi, M.D., Lake City; Napier S. Aldrich, M.D., Coldwater; Cornelius A. Alexander, M.D., Kalamazoo; William Edward

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Of mortal men on the earth?—
Most men eddy about
Here and there—eat and drink,
Chatter and love and hate,
Gather and squander, are raised
Aloft, are hurl'd in the dust,
Striving blindly, achieving
Nothing; and then they die—
Perish! and no one asks
Who or what they have been,
More than he asks what waves
In the moonlit solitudes mild
Of the midmost Ocean, have swell'd,
Foam'd for a moment, and gone.

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IN MEMORIAM

Charles W. Courville, M.D.

Dr. Charles W. Courville of Detroit, died on August 31, 1939. He was born in Detroit fifty-eight years ago, and was graduated from the Detroit College of Medicine in 1905. Dr. Courville was a diagnostician for the Detroit Board of Health and a member of the staff of Providence Hospital, Detroit. He had been in practice in Detroit for thirty-three years and was a member of the Wayne County, Michigan State and American Medical Associations. He is survived by his wife; a son, Dr. Charles J. Courville; three brothers, Herbert, John and Fred, and two sisters, Miss Minnie Courville and Mrs. Herbert Simmons.

J. Frank Kilroy, M.D.

Dr. J. Frank Kilroy, supervisor of the City Physician's office for nineteen years in Detroit, died on September 9, 1939. He was born in Detroit sixty years ago, attended the Jesuit College, now the University of Detroit, and was graduated from the Detroit College of Medicine. Dr. Kilroy leaves two brothers, Leonard and Lawrence, and a sister, Josephine.

A. J. MacKenzie, M. D.

Dr. Alex J. MacKenzie, prominent Port Huron physician and surgeon, died July 19, 1939, of coronary thrombosis while on a vacation at Killarney, Ontario. He was born 1877, at Point Edward, Ontario, and received his early education in Canadian elementary schools. He taught in a rural school in Ontario for almost three years, after which he entered the Detroit College of Medicine and was graduated in 1904, entering practice in Port Huron. In 1922, he made a clinical tour of hospitals in Edinburgh, Leeds, London, Paris, Berne and Rome. Dr. MacKenzie served eleven months in France during the War, and was given a captain's commission. He was a member of the American College of Surgeons, American Medical Association, Michigan State Medical Society, and was a former president of the St. Clair County Medical Society. He had been chief surgeon for the western division of the Grand Trunk Railway since 1905, and was the first chief of staff of the new Port Huron General Hospital. Dr. MacKenzie was also a member of the Detroit Yacht Club, Grosse Pointe Yacht Club and the Knights Templar. In 1904 he married Miss Anna Smith who died in 1919. In 1927 Dr. MacKenzie married Miss Adassa Drope, who survives him. Two sons, Gerard S. and Alex Jr. of Port Huron, and a brother and sister also survive him.

Walter E. Ward, M.D.

Dr. Walter E. Ward of Owosso, died on September 11, 1939, at the age of seventy-eight. He was graduated from the University of Michigan in 1883. Dr. Ward was for years the secretary of his county Medical Society. He was the oldest secretary in point of both age and service. He was elected emeritus member of the Michigan State Medical Society when it met in Battle Creek in September, 1934.

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MEDICOLEGAL PHASES OF OCCUPATIONAL DISEASES. An Outline of Theory and Practice. By C. O. Sappington, A.B., M.D., Dr. P. H., Consultant, Occupational Diseases and Industrial Hygiene, Formerly Director of Industrial Health, National Safety Council. Chicago: Industrial Health Book Council, 1939.

* * *

TREATMENT BY DIET. By Clifford J. Barborka, B.S., M.D., D.Sc., F.A.C.P., Department of Medicine, Northwestern University Medical School, Chicago. Formerly Consulting Physician, The Mayo Clinic, Illustrated, Fourth Edition, Revised, 1939. Philadelphia: The J. B. Lippincott Company.

* * *

SURGERY OF THE EYE. By Meyer Wiener, M.D., Professor of Clinical Ophthalmology, Washington University School of Medicine, St. Louis, Missouri; and Bennett Y. Alvis, M.D., Assistant Professor of Clinical Ophthalmology, Washington University School of Medicine, St. Louis. 445 pages with 396 illustrations. Philadelphia and London: W. B. Saunders Company, 1939. Cloth, \$8.50.

This is entirely a book for the ophthalmologist. A significant feature of it is the detail description with illustrations of each major operation on the eye. Serial drawings illustrating operative technic have been freely used.

* * *

NEW AND NONOFFICIAL REMEDIES, 1939. Containing Descriptions of the Articles Which Stand Accepted by the Council on Pharmacy and Chemistry of the American Medical Association on January 1, 1939. American Medical Association. 535 North Dearborn Street, Chicago, 1939.

This book constitutes a list of articles that stand

accepted by the Council on Pharmacy and Chemistry up to January 1, 1939. In it one will find a description of these articles, their actions and therapeutic uses. Following each description there is a list of available preparations that have been accepted.

* * *

CLINICAL PATHOLOGICAL GYNECOLOGY. By J. Thornwell Witherspoon, B.S. (Princeton); B.A. (Oxon); M.D. (Johns Hopkins). Formerly Associate Professor of Experimental and Pathological Gynecology, Indiana University Medical Center, Indianapolis. Illustrated with 271 Engravings. Lea & Febiger. Philadelphia, 1939.

The author offers this volume primarily as a discussion of organic gynecological pathology. He has arranged the subject matter under the headings of anatomical locations and, after discussing the various phases of pathology, gives their clinical application in a discussion of their etiology, symptoms and treatment. The chapters of hormones and menstruation and its disorders are brief, yet informative. Illustrations are used freely which add to the value of the book.

For those who wish a concise discussion of the various diseases affecting the female generative tract with special stress laid on their pathology, this book will prove of value.

* * *

RECENT ADVANCES IN HAEMATOLOGY. By A. Piney, M.D., Ch.B. (Birm.); M.R.C.P. (Lond.) Assistant Physician, St. Mary's Hospital for Women and Children, London. Fourth Edition with 8 coloured plates and 34 text-figures. Philadelphia. P. Blakiston's Son & Co. Inc. 1012 Walnut Street. 1939.

The author acknowledges the impossibility of presenting only the "recent advances in hæmatology" and has included many well-known facts concerning the blood. The greater part of the book deals with the formed elements of the blood and the blood forming organs. A knowledge of the origin, structure, functions, and abnormalities of both cells and tissues are considered as necessary to a proper un-

derstanding of pathological changes that may be encountered. Thus, we find a description of the various cells of the blood. These are illustrated by many colored plates reproducing the colors of the stained cells as viewed under the microscope.

Finally, we find a description of the various so-called blood diseases and here again are many colored illustrations of microscopic findings in these diseases.

* * *

MENSTRUAL DISORDERS—PATHOLOGY, DIAGNOSIS AND TREATMENT. By C. Frederic Fluhman, B.A., M.D., C.M. Associate Professor of Obstetrics and Gynecology, Stanford University School of Medicine, San Francisco, California; Assistant Visiting Obstetrician and Gynecologist to Lane and Stanford University Hospitals; Fellow of the American Gynecological Society. Illustrated. Philadelphia and London. W. B. Saunders Company, 1939.

In order to understand "menstrual disorders" the author realizes the necessity for a preliminary understanding of the normal physiology of the menstrual phenomenon. Accordingly, he has devoted considerable space to the menarche, the menstrual cycle, the morphologic changes during the menstrual cycle and to the comparative changes of menstruation. Because of the interest shown in recent years in endocrine glands, he gives special attention to the importance of the hormonal factors affecting the menstrual function in the light of present scientific investigation. His classification of menstrual disorders is rational and his discussion of the various manifestations of disorder in the menstrual function is thorough and logical. Because the etiology of many of these disorders is, as yet, more or less obscure, he discusses their causation from the basis of clinical observations and of pathologic findings, as well as from the point of view of recent scientific biologic investigation and research. The treatment outlined, not only is directed to the removal of the cause whenever possible, but to the relief of symptoms as well.

For those who desire a scientific discussion of a subject much in the literature and one concerning which there is much misinformation, this would seem to be a worthy addition to the library.

* * *

ANNUAL REPRINT OF THE REPORTS OF THE COUNCIL ON PHARMACY AND CHEMISTRY, of the American Medical Association for 1938 with the Comments that have appeared in the Journal. American Medical Association, 535 North Dearborn Street, Chicago, 1939.

This volume is the annual reprint of the Reports of the Council on Pharmacy and Chemistry and contains these reports as published in the Journal and those of lesser importance which were not published. In it one finds a discussion of various preparations as they have been presented for admission to the N.N.R.; and for those who are interested in such discussions the book will find a welcome place.

* * *

CARDIOVASCULAR DISEASES—THEIR DIAGNOSIS AND TREATMENT. By David Scherf, M.D., and Linn J. Boyd, M.D., F.A.C.P. Associate Professor of Clinical Medicine and Professor of Medicine, respectively, The New York Medical College, Flower and Fifth Avenue Hospitals. St. Louis. The C. V. Mosby Company, 1939.

Cardiovascular Diseases by David Scherf and Linn Boyd of New York Medical College and published by C. V. Mosby is the title of a book of about four hundred pages dealing with diagnosis and treatment of various syndromes coming under this title. It is a small concise book giving information about diagnosis and treatment of the most important problems of cardiovascular diseases. It omits almost entirely any reference to electrography in as much as the book is intended for the practitioner who has no means at his disposal for that phase of diagnosis. A great majority of the book

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is concerned with diagnosis and only a relatively small space is delegated to treatment. It would seem that the latter should be given more emphasis in keeping with the practical interest of the authors. This book is very good reading and presents a great deal of most valuable information in condensed form for those who do not desire too much detail.

* * *

TEXTBOOK OF MEDICAL TREATMENT. By various authors; edited by D. M. Dunlop, B.A.(Oxon), M.D., F.R.C.P.(Edin.), Professor of Therapeutics and Clinical Medicine, University of Edinburgh, Physician, Royal Infirmary, Edinburgh; L. S. P. Davidson, B.A.(Camb.), M.D., F.R.C.P.(Edin.), M.R.C.P.(Lond.), Professor of Medicine, University of Edinburgh, Physician, Royal Infirmary, Edinburgh, Formerly Regius Professor of Medicine, University of Aberdeen; J. W. McNee, D.S.O., D.Sc., M.D.(Glas.), F.R.C.P.(Lond.), Physician, H.M., the King in Scotland, Regius Professor of Practice of Medicine, University of Glasgow, Physician, Western Infirmary, Glasgow, Consulting Physician, University College Hospital, London. With a Foreword by A. J. Clark, B.A.(Camb.), M.D., D.P.H., F.R.C.P.(Lond.), F.R.S., Professor of Materia Medica, University of Edinburgh. A William Wood book. Baltimore: Williams and Wilkins Company, 1939.

In reading the usual works on the practice of medicine, who has not felt the inadequacy of the section or perhaps only a paragraph on Treatment? Dunlop's Textbook on Medical Treatment was written to supply the field often left when even the best textbooks on medicine have dealt with the subject. Dunlop's work is a product of the experience and erudition of four Scotchmen whose careers entitle them to a hearing. It is a personal work giving specific details on the subject. In nearly twelve hundred pages, the authors have covered the entire field of general medicine (not surgery). Rather than merely drug therapy, their theme has been "The Management of the Case." They have given their frank opinion about the use of various drugs and procedures with a real Caledonian frankness. There is so much of interest in the book that it is difficult without devoting pages to do it justice in the space at the reviewer's disposal. It is one of the most useful as well as one of the most readable works on medicine that, in the reviewer's thirty-five years of medical reading, he has seen. The general practitioner and internist and particularly the younger practitioner will welcome it.

* * *

PRIESTS OF LUCINA, THE STORY OF OBSTETRICS. By Palmer Findley, M.D., F.A.C.S. Illustrated, pages 421. Price \$5.00. Boston: Little, Brown and Company, 1939.

Obstetrics is the oldest medical specialty, antedating civilization itself. This work is a distinct contribution to medical history. The first chapter deals with primitive midwifery in which we have described the experiences of prehistoric woman. Then follows an interesting account of obstetrical practices in the Ancient World, Mesopotamia, Egypt, Persia, India, China, and Japan and the ancient Hebrews. There was of course little or no science at this early period. The dawn of science was reserved to be ushered in by the Greeks. Soranus of Ephesus, the first and second centuries A. D., was considered the great name in obstetrics among the Greeks. He also wrote extensively on the care of the newborn as well as diseases of childhood. He was also, therefore, the first pediatrician. Six centuries before Soranus, however, we have mention of obstetrics in the Hippocratic writings along with other accounts of Greek medicine and Surgery.

While obstetrics is an ancient specialty, the reader is not to infer that it was practiced to the exclusion of medicine and surgery, except by midwives. Far from it. The author has included many well known names, Galen, Paré, William Harvey, the Chamber-

JOUR. M.S.M.S.

lens, Smellie, William Hunter, Semmelweis, as well as many other Europeans and Americans. The work is divided into two parts, the first of 280 pages deals in a very interesting way with personalities; the second part, 104 pages, discusses what he calls a history of special phases of obstetrics, including Anatomy, the Forceps, the Midwife, Puerperal Fever and the Cesarean operation. There is a broad field for this book. No one can know his specialty with any degree of completeness until he knows its history. This is true not only of the obstetrician and gynecologist who limit their work, it is also applicable to the general practitioner who includes obstetrics in his practice. It is written in a most entertaining way, showing a wide knowledge of medical history on the part of the author.

* * *

MANUAL OF THE DISEASES OF THE EYE FOR STUDENTS AND GENERAL PRACTITIONERS. By Charles H. May, M.D., Consulting Ophthalmologist to Bellevue, Mt. Sinai and French Hospitals, New York. Sixteenth Edition, revised, with the assistance of Charles A. Perera, M.D., Instructor in Ophthalmology, College of Physicians and Surgeons, Medical Department of Columbia University, New York, with 387 illustrations including 31 plates, with ninety-five colored figures, 500 pages. Price \$4.00. Baltimore: William Wood and Company, 1939.

The first edition of this work appeared in 1900. There are very few medical textbooks that have been so long known to and received so favorably by the medical profession. The universality of favor in which the book has been received may be seen by the fact that since its first appearance there have been eight British, nine Spanish, six French, six Italian, six Dutch, two German, two Japanese, three Chinese and one Portuguese edition. May's Manual comes as near perfection as a textbook as the reviewer can conceive. It treats for the most part of the established facts in diagnosis and treatment of pathological conditions of the eye; the author has not only written clearly and concisely, but he has made the best possible use of illustration. The publishers have cooperated with a craftsmanship that is worthy of the author's efforts. The sixteenth edition has been thoroughly revised with the chapters on Glaucoma, Lens, Retina, Optic Nerve and Errors in Refraction entirely rewritten. The work will continue to be popular particularly with the general practitioner and as a textbook for the undergraduate.

* * *

FUNCTIONAL DISORDERS OF THE FOOT, THEIR DIAGNOSIS AND TREATMENT. By Frank D. Dickson, M.D., F.A.C.S., Orthopedic Surgeon, St. Luke's, Kansas City General and Wheatley Hospitals, Kansas City, Missouri; and Rex L. Dively, A.B., M.D., F.A.C.S., Orthopedic Surgeon, Kansas City General Hospital; 202 illustrations. Price \$5.00. Philadelphia: The J. B. Lippincott Company, 1939.

This is an interesting as well as useful book. The painful foot, like the proverbial sore thumb, we cannot forget. The authors are correct in their assertion that the correction of foot disorders has been largely left to non-professional persons. So universal is foot trouble that it should engage the serious attention of the medical profession. The reviewer sees how this is not such an easy matter, since the intelligent cooperation of the patient is necessary for successful treatment. After chapters on the anatomy and physiology of the foot, the authors discuss such subjects as primary causes of foot imbalance, the foot of childhood, of adolescence, of adult life, foot apparel, affections of the nails, skin, tarsal and metatarsal bones, the heel, constitutional diseases which may affect the feet, and finally treatment under the headings of foot strapping and foot exercise. By illustration and clear description, the authors have succeeded in presenting to the profession a useful book on a very important subject.

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SURGICAL ANATOMY: By C. Latimer Callander, A.B., M.D., F.A.C.S., Associate Clinical Professor of Surgery and Topographic Anatomy, University of California Medical School; Member of Founders' Group of the American Board of Surgery; Member of American Association for Traumatic Surgery; Associate Visiting Surgeon to the San Francisco Hospital. 858 pp. 819 ill. 2nd ed., entirely reset. W. B. Saunders Co., 1939.

When the first edition of Callander's book appeared in 1933 as a clear, well illustrated, one-volume work on surgical anatomy, its publication was welcomed in these columns as a valuable addition to the surgeon's library. The new edition has been completely revised to provide a more compact and concise treatment. Two hundred fifty pages have been eliminated, and this has been possible largely through the deletion of a number of less pertinent illustrations. One hundred new illustrations, however, have been added, and the text is now in closer line with current surgical practices. The material covered is well balanced; twenty-five to fifty pages deal with the perineum and with the vertebral column and spinal cord; fifty to a hundred page sections deal with the thorax, neck and pelvis; and the head, abdomen and each of the extremities are treated in sections of one hundred to

one hundred fifty pages. The book is well indexed. Illustrations are exceptionally well selected and are clear and artistically executed. As a still more practical work than its predecessor, the new edition of Callander's book should have considerable appeal both as a reference and as a textbook.

* * *

A TEXTBOOK OF HISTOLOGY. FUNCTIONAL SIGNIFICANCE OF CELLS AND INTERCELLULAR SUBSTANCES. By E. V. Cowdry, Professor of Cytology, in the School of Medicine, Washington University, St. Louis, Mo. 2nd ed., thoroughly revised. 600 pp. 323 ill., some in color. Lea & Febiger, Phila.

Modern histology is a wider science than it was several decades ago. It deals with the integration of structure and function to a greater extent and has acquired greater significance in regard to physiological, pathological and medical problems. The newer aspects have often received a minor position in textbooks. Too frequently, the medical student leaves the histology classroom with little more than a group of spot characteristics for the identification of fixed and stained tissues. The emphasis provided by Cowdry's book is an almost certain corrective for this tendency, for histology is presented as a dynamic field. Body fluids and blood are dealt with first, and the functions of the fluid system and their cellular constituents are emphasized. The protective mechanisms of the body and the spleen follow. The endocrine organs are considered largely from the standpoint of chemical integration and in their relation to the blood stream. The various organ systems are then treated with emphasis on the mechanisms involved in the intake of nutriment, in the consumption of oxygen and the elimination of carbon dioxide, in the removal of waste and in the integration of response by means of the nervous system. The connective tissues and muscular systems, which ordinarily form introductory chapters in histology texts, are treated next, and the reproductive system and skin complete the chapters.

More than other texts, Cowdry's book emphasizes functional mechanisms, but structure is by no means slighted. The text has been rewritten to a large extent in this second edition, and is well suited to classroom use.

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CERTAIN SYMPTOMS COMMON TO THE NOSE, EXPLAINED ON A PHYSIOLOGIC BASIS*

HAROLD I. LILLIE, M.D.

ROCHESTER, MINNESOTA



H. I. LILLIE

For one properly to recognize symptoms and signs of pathologic significance referable to the nose or of any system of the body for that matter, one should be thoroughly familiar with the normal physiologic activity of the part. That more is not known of the practical significance of physiologic manifestations of nasal function is due to the fact that it was not taught, or indeed scarcely alluded to, in medical curricula and is not frequently referred to in the medical literature. I shall endeavor to show that knowledge of the fundamental physiology of the nose is important in the daily practice of the physician.

When it is realized that the nose is the only portion of the body that cannot be appropriately protected from the environment to which it is subjected, it will be appreciated that in order to withstand the exposure to which it is subjected, it must have a wonderfully adaptable functional mechanism. For that reason it is important that fundamentals of the physiology of the nose be known, because in daily practice many patients are encountered who complain of symptoms referable to the upper part of the respiratory tract, which, on final analysis, are not symptoms of pathologic change, but may be explained as evidences of normal physiologic response to the structures to changes in environment.

It is generally considered that the first serious attempt accurately to describe the anatomy and physiology of the nose can be credited to Galen, who lived in the second century A. D. Hippocrates and Aristotle

had thought that the reason the nasal interior was moist was that the secretions came from the brain through the cribriform plate of the ethmoid bone. Galen subscribed to this idea. He thought that the nasal membranes were bloodless but he recognized that they were continuous with those of the pharynx and mouth. That the nasal membranes contained secreting glands was not recognized until the time of Schneider. To his credit, Galen said that the function of the nasal interior was to prevent the air from entering the trachea, directly, "First, because the air surrounding us is at times quite cold and the lungs then would be chilled; and, secondly, because small particles of dust or of ashes or anything of this kind may not fall into the trachea."

It was in the sixteenth century that open revolt against the previously accepted ideas of Galen occurred. Among the revolters was Vesalius, a Belgian, who had that attribute of genius described by Carlyle as the

*Read before the Seventy-fourth Annual Meeting of the Michigan State Medical Society, Grand Rapids, September 19, 1939.

ability to see with one's eyes and the inability not to believe what one sees. However, Vesalius, in his observations of the anatomy of the nose and throat, committed more errors than he corrected.

Contemporaneously with Schneider, Willis felt that the fluids in the nose came through the nerves, which he considered to be tubes coming from the brain. Van Ruysch believed that nasal secretions came directly through arterioles and he did not accept the ideas on intermediary effect of glands. Schneider, in the middle of the seventeenth century, wrote voluminously. He showed that secretions in the nose could not come from the brain, through the cribriform plate of the ethmoid bone or lacerated foramina, or through the nerves because they are impervious. He found that mucus could be squeezed out of living or dead membranes but did not mention glands. It was Steno who first described mucous glands. Following introduction of the microscope and discovery of methods of preparing tissue for microscopic study, great strides were made.

Rhinology has made great progress in the past quarter century and, fortunately for patients, is now practiced on a more conservative and scientific basis than before. Formerly it was largely practiced on a purely anatomic basis, and, in consequence, many patients underwent very destructive intranasal operations without their symptoms being relieved. This practice led, as Stein¹⁶ said, to adding many new symptoms to the old. In the future, we may look for application of more physiologic facts and, as experience grows, we may learn to see the patient as a whole rather than through the "hole" of the nasal speculum.

The function of the nose has been said to be fourfold: to warm, to moisten and to filter the inspired air, and to smell. The efficiency of each of these processes depends, largely, on the function of the vasomotor control. The special sense, olfaction, will not be considered.

General Fundamental Aspects

Certain individuals can be identified easily by the particular conformation of their noses. In fact, in police work, the nose has been used for this purpose. A well-functioning nose may not necessarily be a

thing of beauty but it is a joy forever. It would be difficult to describe the external appearance of the nose in words, and rather difficult to describe its position on the face. All noses of men have one common characteristic: the openings are more nearly on the horizontal than on the vertical plane, when one lives an upright life. There seems to be a natural reason for this, the directing of the air currents into the intranasal structures, or real functioning region. To be sure, a person may live his allotted life breathing through the mouth, but he will not live so comfortably under all environments. Patients are also known to have lived twenty years breathing through a tracheotomy tube.

The indications of the nasal fossa in the embryo appear as pits, situated on either side of the anterior portion of the head, and are first seen at about the twenty-first day, the same time that the eyeball and ear vesicles appear. As development takes place, these nasal pits fuse.¹⁰ Intranasally, the nose is divided by the septum, which is scarcely ever perfectly straight, into nearly equal cavities, opening anteriorly through the vestibule and posteriorly into the pharynx through the choana. From the lateral wall project the three turbinate bones, thereby enlarging the available surface exposure, and helping to direct the air currents within the nose. Beneath each turbinate is situated the so-called meatus, of which the middle meatus is the most important because in it, protected by the middle turbinate, is situated the hiatus semilunaris, with the openings to the paranasal sinuses. The inferior turbinate is normally the largest and tapers toward each end. Under it is the opening for the lacrimal duct. The intranasal cavity narrows as it approaches its upper extent. That portion of the nose which is below the level of the superior border of the middle turbinate may be said to be respiratory in function, and that above, olfactory. From the choana, the air enters the pharynx.

Histologically, the upper part of the respiratory tract may be said to be lined by the same type of membrane and substructures, except that in certain situations certain characteristics predominate. For instance, the mucosa is relatively thicker over the turbinates than it is in any of the other

portions of the tract, and in the ethmoid cells it is relatively very thin. The lining mucous membrane is very vascular and is inseparably united with the periosteum and perichondrium over which it lies.

The blood supply comes largely from the sphenopalatine artery, which anastomoses with the ethmoidal, external nasal, septal and palatine arteries and with those which supply the lower part of the nasolacrimal duct. This network of vessels occupies the deepest regions of the mucosa and the periosteum. The veins empty into the facial veins largely but from the ethmoidal region they communicate with the venous plexus through the cribriform plate. The veins which arise around the lacrimal sac and duct empty into the orbital veins, and into those of the face around the orbit. The lymphatics are subepithelial and large.

The respiratory membrane is supplied with cavernous blood spaces of erectile tissue. The arterioles are supplied with a muscular layer and, from their deep situation, take a cork-screw course toward the surface and the venous sinuses, the latter of which may be of considerable size and so much enlarged in the mucosa when it is the site of inflammatory change, that it is often difficult to judge what is abnormal. Development of the erectile tissue has a close relationship with the beginning of sexual life, since it is seen in its full extent only after adolescence has been established, and it begins to atrophy after middle life. This fact is of definite clinical importance in everyday practice.

The capillaries are distributed everywhere through the connective tissue of the mucosa. Tiny capillary twigs are in contact with the basal layer of the glandular epithelium, and Wright¹⁷ has said that it is possible to see direct diapedesis of the leukocytes through the capillary walls and between the gland cells, into the lumina of the acini. There is every reason to believe that in this way the blood vessels may empty the serous and leukocytic elements of the blood directly into the glands. Vasomotor dilatation, therefore, means not only exudation of the serum of the blood vessels into the stroma, and consequent swelling of it, but simultaneously a direct discharge into the glands and onto the surface of the mucosa. Around

the ducts of the glands, the mouths of which usually lie in some sulcus of the surface epithelium, there is a more or less thick network of capillaries. It is seen, then, that vasomotor dilatation of these capillaries would mean considerable constriction of the outlets of the glands. As the vasomotor excitement subsides, this constriction is released and free discharge of the content of the seromucous glands is afforded.

The contractile elements of the stroma are composed of elastic tissue and smooth muscle fibers. It will be recalled that attention was drawn to the erectile tissue and to sexual development, and it becomes clinically important that this be recognized, for it accounts for many of the so-called "stuffy noses" so often seen in adolescence and newly married couples. Innervation of these substructures comes from the parasympathetic nerves through the sphenopalatine ganglion and, as knowledge of the sympathetic nervous system and its substructures increases, it will be possible to deal more intelligently with the various syndromes that are attributable to derangement of the vasomotor control. The elastic elements are important because of the effect that repeated inflammatory reactions may have on them. Thick interlacing bundles, running parallel with the planes of the bone, are demonstrable. In the same manner, the smooth muscle cells of the blood vessels are important because of the effect that repeated inflammatory reactions, resulting in enlargements, may have on the caliber and function of the blood vessels.

The sensory nerve supply comes largely from the fifth cranial nerve. The activating nervous impulses that control what might be called the automatic responses of the nasal membranes, come through two sets of antagonistic autonomic nerves, the vasoconstrictors and the vasodilators. The vasoconstrictor fibers arise from the preganglionic fibers from the central nervous system and the postganglionic fibers from the cells of the sympathetic ganglions. These nerves exert a constant tonic effect. The efferent fibers which cause vasoconstriction are called "pressor" fibers and those that cause vasodilatation are called "depressor" fibers. The vasoconstrictors arise chiefly from the cervical sympathetic nerves. Hempstead⁷ has observed marked conges-

tion of the nasal membranes of patients who have been subjected to removal of the cervical ganglions for certain vasospastic conditions of the upper extremities.

It is known that the caliber of the blood vessels is influenced by agents other than the vasoconstrictor and vasodilator fibers. Chemical substances, carbon dioxide, histamine and lactic acid, Bayliss² has shown, may produce vasodilatation. Internal secretions, such as epinephrine, may cause vasoconstriction.

Whether the cells of the surface layers of epithelium are of the columnar or of the pavement variety, those of the basal layers, except for the olfactory region, are cuboidal in shape, resembling closely the fixed connective-tissue cells with which they mingle, for there is no limiting membrane between them. It is often difficult to determine where the epithelium leaves off and the stroma begins. In the olfactory region, the epithelium is nonciliated and columnar, and does not possess the glandular elements seen elsewhere. In the respiratory portion, the membrane is covered with columnar, ciliated cells and a mucous film.

In recent years, action of the cilia and movement of the mucous film have received much attention in rhinologic circles. Elucidation of these phenomena has called the attention of observers to the importance of normals and thus has had good effect. However, it can be said, without detracting from the interest of these phenomena, that the action of the cilia is only one phase of the general physiology of the nasal membranes. It has been shown that cilia, fortunately, are present in newly formed membrane following operations. It has been clearly shown by Hilding,⁸ Proetz,¹² Yates,¹⁹ and others how the mucous film and the movement of the cilia perform their function. In the sinuses the cilia have the important function of directing flow toward the ostia. The greatest good has come from exposition of the facts that the normal presence of mucus and the activity of the cilia are great barriers to infection. It is only when this mechanism is deranged that infection gains a foothold.

The Bowman type of gland prevails in the olfactory region. These glands secrete a much less viscid fluid than the racemose glands in the respiratory membrane. Al-

though it may be true that these cells secrete a peculiar fluid which aids in the function of olfaction, its watery character is especially adapted to extend over the olfactory surface and to cause the fluid to drip down as sterile irrigation for the respiratory region below. It is not bactericidal in action.

The racemose glands of the respiratory region differ in no way from the structure of racemose glands elsewhere in the body. Not infrequently the acini are imbedded in the tissue, but, as a rule, they lie more superficially than the cavernous sinuses, varying greatly in their distribution. In the paranasal sinuses there are very few. It is said that the secretion from the respiratory part of the membrane is in itself considerably bactericidal, at least bacteriostatic.

Under normal conditions the secretions of the nose maintain a certain physiochemical composition which fluctuates within a limited range, depending on the demands of physiologic activity. This is an involved subject and the details have no place in a discussion such as this. The secretion is composed of mucin, solids, minerals and an aqueous portion. The mucin originates in the racemose glands and probably acts as a deterrent to the rapid absorption of the serous portion of the secretion; in addition to having a protective influence on the sensitive ciliated cells it has been shown that the mucus has a bacteriostatic effect.

The activity of the secretory mechanism may be observed clinically. If a patient whose nasal interior is apparently normal can be observed over a period of time, at short intervals, it will be noticed that the appearance and relative position of the membrane within the nose changes. At first one nostril may be filled because the membranes are swollen; the surface is smooth and relatively dry. In a moment or two, the surface is seen to be studded with little discrete drops of moisture. Soon the droplets increase in size and the surface begins to be covered with a film. Now it is noticed that the swelling of the membrane is less and gradually becomes much less, so that the membrane does not fill the nostril as it did. The membrane in the opposite nostril, if examined, may be found to be increasing in size. What has happened is that the blood spaces in the membrane have

filled; the involuntary muscle, through stimulation of nerves, is causing contraction of the blood spaces, forcing the blood into the glands and stroma, and in turn the content of the glands is expelled through the ducts onto the surface, producing the droplet that can be seen. As the activity is increased, the secretion increases until the cycle is completed. The watery, or predominant, portion of the secretion comes from the tubular, Bowman type of gland. This automatic flushing of the surface cannot be imitated by sprays and douches. Denuding of the surface subjects the sensitive epithelium to changes that are not consistent with normal conditions.

It can be observed clinically that nasal respiration is an adaptive reflex mechanism, lessening resistance when respiratory need is increased, and vice versa. Dilatation of the vessels, when it is not carried to the point of rendering insufficient the amount of air supplied to the lungs, renders the air, when it reaches the pharynx, not only warmer, more moist, and more free of dust and bacteria, but by filling the unnecessary space in the respiratory region of the nose, it directs a more copious supply of air toward the olfactory region. Wright and Smith¹⁸ said:

"The internal configuration of every nose, even of those we pronounce normal, varies so greatly that every nasal chamber is a law to itself. Anterior and posterior rhinoscopy are often incapable of furnishing us with trustworthy information as to the efficiency of the nasal chambers in the performance of these functions. The statements of patients are still more untrustworthy. Some fail to appreciate even extreme grades of nasal obstruction. Others complain of it when manifestly it does not exist. The clinical experience, the common sense of the physician, and his ability to judge the patient's temperament are more important guides to the appreciation of how these functions are in reality being performed, than the help his technical skill or the instruments of precision at his disposal furnish him."

Paget¹¹ has said that he believed the function of the nose to be to filter the air and that the other ascribed functions are entirely subsidiary. He expressed the belief that nearly every healthy man has lost the power to breathe through the nose because of the tendency to alar collapse, that if more respiration was nasal there would be less pulmonary disease.

Chapmell,⁴ in discussing Paget's annotation, quoted Catlin's book entitled, "Shut

Your Mouth," written in the early forties of the nineteenth century. Catlin was impressed by the healthiness of the American Indian children, whose mothers insisted on their breathing through their noses. Hagemann⁵ expressed the belief that the function of the nose may be emunctory to a large extent. Wright has said, "Vasomotor phenomena answer to every demand of physiologic need only so far as the mechanism is undamaged in all its parts. Repeated temporary exaggerations of physiologic response lead gradually to the graver forms of polypoid rhinitis and atrophic states." Thus it is seen that the function of the nose is carried on by virtue of its internal configuration and the mechanism of its mucous membrane. As the air enters the vestibule, it takes an upward course, passes over the superior surface of the inferior turbinate, over both surfaces of the middle turbinate, and enters the pharynx. The membrane of the pharynx is essentially like that of the nose, except that it is not so specialized. In the pharynx, however, there is lymphoid tissue; such tissue is not encountered in the nose. In passing over these structures, the air currents take up the moisture from the surface, and are thus warmed, moistened, and filtered. In expiration, the air currents are directed largely through the inferior meatus by the posterior tip of the inferior turbinate. What function is served by the accessory sinuses of man is a question, but it is apparent that they are ventilated by the negative pressure effect exerted by the passing streams of air. The function of the tonsillar tissue in the pharynx is also uncertain; that it has a function in early childhood, even though it is not understood or known, I am willing to admit.

Symptoms referable to the upper part of the respiratory tract are less common and are less often complained of when persons live where the climate is warm and equable. This is because there is less necessity for the nose to over-function in order to prepare the air for the lower part of the respiratory tract. Such a climate, however, has its definite drawbacks, as it has been shown that mental and physical productivity are at lower levels than in less equable environments. Huntington,⁹ in his "Civilization and Climate," proved that the output of factory workers increases with change in

temperature, and that no other elements of weather seem to have a real influence on such productivity. He explained the physical superiority of persons who live in hard, rugged climates by the subjection of their bodies to frequent and extreme alternations of temperature. The reasonable physiologic explanation of this phenomenon seems to be stimulation of the tonus of the vasomotor system.

Sewall¹³ said:

"Climate is the summation of atmospheric conditions as recorded for a long period of time, or in other words, it is the totality of the weather, while weather is the physical condition of the atmosphere at a given time, or during a limited period.

"It was formerly thought that the atmosphere affected the body only, or chiefly, through the absorption of its elements by the lungs, but it has been found that this is not the case, and that these symptoms are caused by the effects of the atmosphere on the surface of the body . . . In this connection, the various respiratory membranes are to be thought of as internal body surfaces, which are also brought in direct physical contact with the atmosphere. Heat, humidity, and stillness are the essentials in a bad atmosphere; coolness, dryness, and motion of the air constitute good ventilation."¹¹

From what has been described as the normal physiologic reaction of the nose, it can be seen how, with a perfectly acting mechanism, particularly the vasomotor mechanism, the nose would be called on to function in different atmospheres. In the variable, rugged climate of the Northwest, with frequent changes in weather, one might expect that the membrane of the upper part of the respiratory tract would become hypertrophic, whereas, in the warm, equable climate, where the nose is not required to function excessively, there might be very little change. It is easy to understand, then, that in the north, in adolescent and early adult life, many symptoms might arise from the physiologic activity of the respiratory membrane, particularly as it is at this period of life that the function of erectile tissue is at its height. This is why many adolescents and young adults complain of nasal obstruction and excessive secretion. It has been variably estimated that the respiratory membrane might secrete anywhere from a pint to a quart (500 to 1,000 c.c.) a day. Patients often complain of obstruction on alternate sides, but as a matter of fact this is normal. Scarcely ever would both sides of the nose be open to the same extent, for the reason that there

appears to be a cycle of reaction; that is, while the mucous membrane of one nostril is filling to a point approaching obstruction, the other nostril is opening and throwing off its secretion, and by the time the nostril that is filled has completed its cycle, the other nostril has completed the opposite cycle. The reverse is also true. The cycle may not always take place to the extent described, but nearly to that extent.

At my suggestion, Heetderks⁶ made observations on reactions of the nasal membranes of apparently normal persons in each of the first six decades of life, when the persons were subjected to various atmospheric conditions. It was observed that the nasal membranes of adolescents were much more responsive to environmental changes than were the nasal membranes of older persons. In about 80 per cent of cases a definite cycle of activity such as has been alluded to previously, occurred. Also, even though the environmental condition remained the same, a cycle of activity occurred; that is, while the membranes on the turbinates were filling on one side, the membranes on the opposite side were throwing off secretion. Heetderks found that when the subjects were subjected to cold air the secretion was abundant, while in warm air it was less copious and the membrane appeared duller in color.

Patients often complain of obstruction at night on the side on which they are lying. This is the result of passive congestion from gravity and is a normal condition. Complaint is also made of the accumulation of a considerable amount of secretion in the pharynx during the night. Really, the accumulation occurs because it has not been involuntarily disposed of, as it would have been during the day by involuntary swallowing and by eating and drinking. Many persons feel that this condition is detrimental to their health, but I have seen no evidence of this; it is usually the most robust type of patient who makes this kind of complaint. The laity call this condition "catarrh." With the condition of hypertrophic rhinitis superimposed on nasal obstruction caused by anatomic defect, such as a crooked septum, the symptoms are naturally aggravated. In other words, there is an anatomic obstruction and physiologic hyperactivity. Often, in this type of case, correc-

tion of the anatomic obstruction by some operative measure which conserves the membrane, will largely relieve the symptoms. If the symptoms are not relieved in this manner, a change to a high, dry climate often will effect the change by natural processes. The dryness and equability of such a climate will take up the excess secretion that the hypertrophic condition is producing, and there will be little or no variation to cause the excessive physiologic responses. It is in this type of nose that destructive intranasal operations were often performed formerly; these, I believe, are contra-indicated.

Occupation has a great deal to do with the physiologic responses of the membrane of the upper part of the respiratory tract. It has been shown that examination of workers in steam laundries, who have been engaged in this type of work a long time, invariably discloses rather definite grades of atrophy of the membrane of the nose. This can be explained on the basis of climatic conditions, already discussed.

Stark¹⁵ made observations on the nasal membranes of patients who were forced to use a tracheotomy tube because of laryngeal obstruction. During the first several days the nasal membrane was congested and the patient had a sense of fullness. After physiologic rest had been established, the congestion disappeared and the membranes were merely moist and duller in color. One patient, who had been troubled by crusting in the nose previous to the use of the tracheotomy tube, was relieved of the crusting after about a week's time. The explanation of this phenomenon must be that because there were no passing air currents to absorb the moisture, the air did not have a drying effect on the mucous constituent of the secretion.

The lumberjack, the farmer, the delivery man, and others who are constantly out-of-doors in all kinds of weather, are not so much troubled with infection of the upper part of the respiratory tract, or with symptoms encountered so often among persons who live a sedentary, indoor life. Attention to personal hygiene will, in some measure, relieve the symptoms. The city dweller has found that he must protect his feet from becoming wet or cold, or have a "cold in the head." "The man clad all day in the

same kind of clothing finds that he cannot remove any part of this clothing without the risk of taking cold. His wife wears high shoes or spats during the day, when it is warm, and has her neck and chest protected, but in the evening, attending a social function, she apparently disregards all sane principles of dress; yet it is observed that she is less disposed to catch cold than the man." This is another example of the hardening process. The vasomotor tone is better developed if one exposes the surfaces of his body and changes his clothing to suit the occasion than if one constantly dresses in the same manner. Susceptibility to the physiologic changes can be largely controlled by training; that is, the city dweller can become a farmer or a rural delivery man, and gradually acquire the same physiologic reactions, and the reverse is true.

Much has been written and said recently about the effect of relative humidity and ventilation in the home. At first, attention was given to these matters because of the economic factor; it was noticed that the furniture began to creak and come apart in the winter and that by evaporating water in the rooms this was overcome. In addition, a feeling of greater general physical comfort was obtained at a lower temperature. It has been observed that acute infections of the upper part of the respiratory tract resolved more readily when the temperature was warm and the air moist than when the environment was cold and dry, and that when inhalations of steam were used to saturate the inhaled air with moisture, pharyngeal and laryngeal coughs could be largely controlled. During the cold weather the relative humidity of the air is very low. Sleeping out-of-doors on sleeping porches has been advocated as a health-producing habit, probably because of the wonderful health of those who live out-of-doors and sleep out-of-doors; but it is not taken into account that people in the city live, during at least two-thirds of the day, in a temperature sometimes 100° F. above that to which they might be subjected at night. The change causes too great a physiologic response to be endured by a respiratory membrane not accustomed to such changes.

There is another type of physiologic reaction within the nose which is attributable

to some derangement of the sympathetic nervous system, and which results in what is called "vasomotor rhinitis." It may be caused by allergy, endocrine disturbances, avitaminosis or the effect of severe inflammation, and can sometimes be controlled by removing the causal factor if that factor can be ascertained. If the causal factor cannot be ascertained readily, topical applications to the region of the sphenopalatine ganglion, as shown by Sluder,¹⁴ are beneficial; now ionization is advocated by some observers. Brubaker³ called attention to the physiology of sneezing. Sneezing may be the manifestation of vasomotor rhinitis. Sneezing is the normal manner of clearing the nose externally. It is customary for the human being, in order to clear the nose, to blow it in some manner, and he usually closes the open nostril and blows against the opposite nostril. It is granted that this method is effective. This creates a strong, positive pressure in the nasopharynx, and may produce untoward results, because it may cause the forcible spreading of infections to the ear or paranasal sinuses. Patients often indicate that pain in the ear followed blowing of the nose. Animals are seldom affected because their only method of clearing the nose is by sneezing. Finally, it can be inferred, from what has been said, that in the daily management of patients it is important that an understanding of the mechanism of the function of the nasal membrane and its reaction to various environmental conditions be common knowledge and that such knowledge be considered of fundamental importance in the practice of rhinology. Only in this way can the variations caused by pathologic conditions be evaluated.

The prime purpose of any form of treatment should be, as nearly as possible, to establish the parts in a condition of "restitutio ad integrum." The patient, in this way, would be relieved of symptoms and would not have to contend with the discomfort of having had new symptoms added to the old. Conservation of the functional mechanism of the nasal membrane can be effected in many instances if therapeutic measures are applied with this end in view.

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DEALING IN FUTURES

The world of tomorrow is something which catches the imagination of all of us at some particular time. We like to envisage its planes and its contours, the achievements of science, and the perfections of man which will fashion the terrestrial realm nearer to our idea of Utopia. We hope that the world of tomorrow will be a better place to live in than the world of today—that our experience and that of those who have gone before us will have smoothed out the rough places for our children and for our children's children.

From out of the box of Pandora disease came to blight the hopes and happiness of mankind. In our world of tomorrow each one of us would want to reduce suffering and illness to the least possible minimum. At this time of year we have an opportunity to be practical about that desire. It is one thing to wish and another to do. Christmas Seals are now on sale, Christmas Seals which have sponsored a movement for many years to bring about a worthy goal—the gradual eradication of tuberculosis. Our world of today is still struggling against a powerful enemy in this dread disease. Tomorrow's world need have none of it, if we have a real desire to conquer it. Buy Christmas Seals!

CYCLOPLEGICS*

G. H. MEHNEY, M.D.

GRAND RAPIDS, MICHIGAN

Mention will be made of the various standard cycloplegics that have been in use for some time and some of the newer ones will be discussed more fully.

Atropine sulfate in a 1 per cent solution is usually used in children up to an age of twelve. One drop is instilled in each eye three times a day for three days and the refraction is done on the fourth day. It is without doubt the strongest cycloplegic and consequently its prolonged action of five to seven days is a disadvantage for use in adults.

Scopolamine hydrobromide one-fifth per cent is extensively used and is an excellent cycloplegic for all ages from eight to presbyopia. It is used in the office, instilling two drops in each eye 15 minutes apart and refracting at the end of one hour. Its action is rather prolonged, lasting three to four days.

Homatropine hydrobromide is usually combined with cocaine, the latter causing better absorption of the homatropine by slightly softening the corneal epithelium. Its strength and method of use is as variable as the number of men using it. One formula is a $3\frac{1}{2}$ per cent homatropine hydrobromide and $\frac{1}{2}$ per cent cocaine. This may be used one drop in the eye every 10 minutes for 6 doses and the refraction done at the end of an hour. Its effect lasts from 24 to 48 hours.

A solution of $3\frac{1}{2}$ per cent cocaine and $\frac{1}{2}$ per cent homatropine is useful in dilation of presbyopes as it lasts only a few hours, three to six, and can easily be overcome by a miotic. There is a new product emulsion of Neosynephrine Hydrochloride 1 per cent which works very well in elderly individuals. Two or three drops five to ten minutes apart will give sufficient dilation of the pupil for a fundus examination. It is easily overcome with a miotic, has little effect on accommodation, and causes no increased intraocular tension.

Those drugs mentioned have been in use for some time and only recently has any addition or improvement been made in cycloplegics. Beach and McAdams¹ reported the use of benzedrine with homatropine in the *American Journal of Ophthalmology* in February, 1938. It has been found that benzedrine has a synergistic action when used with a cycloplegic drug to speed up the reaction with the use of less drug and still get a maximum effect of the drug, hence a short-

ened recovery period. Beach and McAdams used a 1 per cent solution of benzedrine and a 5 per cent solution of homatropine. The cycloplegic was instilled first, followed by the benzedrine in two or three minutes, and a second dose of the cycloplegic in two minutes.

Homatropine and atropine have been used in this way with benzedrine. The cycloplegic action with homatropine and benzedrine is rapid, often well along in twenty to thirty minutes and at its peak in fifty to seventy minutes, after which it rapidly falls. For example, if the patient is seen in mid-afternoon he is often able to read later in the evening (9 or 10 P. M.) and usually do his work in the morning. When atropine and benzedrine are used the cycloplegic effect is at its height in one to one and three-fourths hours and the patient can read in two to four days. The amount of the error in refraction, whether strongly hyperopic or myopic, makes no difference in the results when compared with homatropine or atropine in the usual method of use. Beach and McAdams found that the only difference between benzedrine and homatropine combination and atropine alone (for three days) was that atropine gave an increased error of one-fourth diopter.

Tassman² in the September, 1938, *American Journal of Ophthalmology*, reported on the use of paredrine, which has a chemical formula very similar to benzedrine, and has the following advantages: by being non-irritating, by producing no rise in intraocular tension in the normal eye, and the possibility of central nervous stimulation is lessened. Cycloplegia is produced in forty to sixty minutes and recovery is the same as that described for benzedrine. The same technic has been suggested as in benzedrine

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or one drop of 4 or 5 per cent homatropine followed by one drop of 1 per cent paredrine and if desired a second drop of the latter can be used.

One method of using homatropine and paredrine is that of adding the homatropine (4 to 5 per cent) directly to the paredrine and instilling 1 drop of the combination in each eye, thereby doing away with repeated doses of the drug. Occasionally it is necessary to instill a second drop of the combination.

This new cycloplegia has many advantages over the others mentioned, but exclu-

sive use of paredrine and homatropine is not necessarily advisable.

Perhaps the following schedule for cycloplegics on a basis of age would be quite useful:

Ages 1½ to 8 or 10 years: Atropine may be used 1 per cent three times a day for three days and refracted on the fourth day.

Ages 8 to 18: Scopolamine 1/5 per cent, two drops fifteen minutes apart and refracted at the end of one hour.

Ages 18 to 50: Paredrine and homatropine, one drop and refracted in forty to sixty minutes.

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OUR GUILD*

B. R. CORBUS, M.D.

GRAND RAPIDS, MICHIGAN

With the turn of the century, a fledgling in medicine, I came into the guild of physicians. Sometime I would like to see a questionnaire sent out to the medical student asking him why he chose medicine for his life work, medicine which demands so much in preparation, so much hard work throughout life, with such a relatively small financial return. I surmise one would find many a different answer, and many of these not very substantial. As for me, I suspect that the dominant reason, though perhaps subconscious, was the desire to belong to the guild, in the atmosphere of which I was raised. In such an atmosphere there were no illusions that the practice of medicine meant an easy life or that through it any considerable wealth might be attained. Nor did I ever hear any cant about medicine being a beautiful humanitarian profession. Indeed, I do not remember such a thought ever entering my mind. But it was a guild which held those whom I most admired and in it were many of my immediate relatives. I have never had occasion to regret my choice. In what other activity could I have found associates so much to my liking. I can agree with the statement made many years ago by W. D. Howells. He comments that "doctors are almost universally gentlemen, either because they were born so, or because the Hippocratic Oath makes them so."

Within the profession are my closest friends. Within the profession it has been my great good fortune to know men of the highest ideals and culture, and in general, to find in the profession a great friendliness. Our common interests bind us together, and although we frequently disagree, there is to-

day, as there has been throughout the centuries, to use Osler's words, a "remarkable solidarity." Had I seen fit to travel far in my search for a location I could have found almost anywhere in the civilized world some one who spoke the language of my profession, some member of my guild who had similar interests, was carrying similar obligations and using quite similar agents and methods in the treatment of disease.

But I happened to come to Grand Rapids and here I found the guild spirit expressing itself in courtesy and kindness and helpfulness. I look back with a great feeling of gratitude to many of the old timers from whom I received encouragement, and, what was even more essential, referred patients. I am under special obligation to Doctor Boise and to Doctor Griswold, whose reputations still live, while for my own contemporaries I have affection and an appreciation which has grown with the years. I presume I have always had, consciously or unconsciously, the guild spirit and the desire to contribute something to guild advancement. It has markedly influenced my professional

*Read before the Kent County Medical Society at a dinner given for President-elect Corbus, December, 1938.

life. I am grateful to the Kent County Medical Society, and to the profession of the State for giving me, when the occasion arose, the opportunity to make, so far as I have been able, my contribution.

As a guild we have back of us long centuries of tradition. Coming out of the dark ages we find medicine largely in the hands of the Jews and Arabs, but now it becomes part of the activity of the educated group of that day, the clergy. In spite of the abuse it received from the grasping monks, it was to remain, more or less, under the control of the church for a considerable period. But control by the church and the State did not lead to the desired advancement of the profession, and so came about, in the early thirteenth century, the formation of the guild of physicians. From the beginning the guild maintained a code of ethics, and enforced to a greater or lesser degree, obedience to its rules. It was influential in setting a standard of practice. Through its efforts there came to be a licensing of the physician by the State, and one of the first recorded institutions, the Faculty of Salerno, required, as early as the thirteenth century, three years of logic, five years of medicine and one year of study under a preceptor, as qualification for the license. It is interesting to note that in England in the early sixteenth century, under Henry VIII, the licensing body for "London and seven miles around" was the College and Faculty of Physik of London, a permanent institution which more than two centuries later was to become the Royal College of Physicians.

The influence of the guild through the centuries undoubtedly served to stimulate the development of the science of medicine and improve the quality of service. The control by the state was necessary to keep out the charlatan and the incompetent, but in so doing there was set up a privileged group. Now privileged groups, whether they are of the seventeenth century or of the present era, are likely to develop certain unfortunate characteristics, and Garrison says in his "History of Medicine," "The physicians in France in the seventeenth century had become pompous and disdainful in manner, narrowly jealous of their rights and privileges, regarding their fraternity as a closed corporation."

That we are not entirely free from some

of the faults of an earlier time we would not deny, but in largest measure the good has come down to us through our traditions, and the reason is that that good has rested upon the code, a code which finds its heart in that splendid humanitarian document, the Hippocratic Oath.

The guild's ambition has ever been to relieve and prevent suffering and illness and the unhappiness that goes with such conditions. By precept and example it has taught the neophyte that it was his obligation to sacrifice his comfort, yea even his health, if, in so doing, he could alleviate the suffering of others. No group, and I do not except the clergy, has held higher the standards of morality. No group has striven more earnestly for the advancement of science. For centuries the guild has preached education and more education, has fought for higher licensing requirements, has urged better schools and better teachers, and today, still unsatisfied, we promote postgraduate centers and even bring the postgraduate teaching to the door of the doctor too indifferent or too occupied to go to such centers.

But we have inherited some of the bad with the good. There still exists what Kanavel, in his presidential address to the College of Surgeons, calls "guild arrogance, guild complacency and guild fundamentalism." We have been inclined to look upon conservatism as a virtue in itself and to hold too closely to it. It is significant that to this day we write our prescriptions in Latin. I think that we must acknowledge that as our organization developed there has crept in some, but by no means to the degree that our critics maintain, yet some of the trade union concept, and, as Kanavel further said, "We have oftentimes been so conscious of our own pure ideals, so filled with pride in our knowledge that we are responsible for the tremendous advance in the treatment and prevention of disease, that as individuals we resent the public questioning our methods of practice. The layman does not understand our reverence for tradition. It is a reverence for the tradition of fine ideals, and it is this tradition which has made for the permanency of the guild, not the tradition of the mode of practice. The critics say that too many doctors give but a lip service to the code. This is unfortunately true, and we regret the occasional commer-

cialist and charlatan within our ranks, as members of the Clergy and the Bar must regret that such individuals are occasionally to be found in the Pulpit and on the Bench. In a way we balance the ledger by contributing to charity (my authority is *Fortune* magazine) an average of two thousand dollars per doctor each year, and we should answer those critics so free in laying the charge of inefficient and insufficient service at the door of the doctor, with the Federal Health Statistics which show that both the sickness and death rate are lower than in any other country, lower here in this country than at any time in history. Our method of practice may be outmoded, but it still works.

Our critics charge that we have been slow to appreciate the implication of certain mass social movements which have been clearly evident for a considerable length of time to observing lay students. There is some considerable merit to this criticism, and your State Society, through its Council, had the temerity six years ago to urge the officers and Board of Trustees of the American Medical Association to recognize the changing social trend by some definite action. It was really more than an urge for action. It was a protest against inaction. It was apparent that the officers of the A.M.A. felt that they had many reasons for moving cautiously and slowly, and one of the reasons may have been pointed out by President Angel of Yale in his address before the College of Surgeons in 1933. "There are," he said, "too many practitioners who see in every social movement affecting medicine, simply one more effort to rob them of a livelihood, and forthwith devote all their energies to digging in where they are." We know, here in Michigan, at any rate, that "Today is being waged a titanic struggle between conflicting schools of thought, Socialism and Individualism. In their wide ramifications and implications they affect the daily lives, habits and welfare of the average person. Medical economics and its solution represent only one phase of a more general economic, social and political controversy."

Whether we like it or not, we will be forced, both by public opinion and government action, to yield some of our cherished traditional modes of practice. In our hearts

we have known for some time that the mechanics of the practice of medicine needed adjusting. Indeed the machine has been creaking for many a year. We complained of the encroachment by government through its various health agencies; we complained of the encroachment on our practice by the free clinic supported by private philanthropy, free clinics to which we freely gave our service and for which we received but little credit. We worked in these clinics because it was a part of our creed, because we felt it was our contribution to society, because we wanted to see more cases that we might be more efficient. And we did not see that this fever for clinics was, in a way, evidence that the guild was not doing its job to the satisfaction of the public.

The public, rich, poor and middle class, wants to have the benefit of the many advances in medical science. It is a perfectly logical desire which we ourselves have created. We have insisted that our patient must have the opportunity to use the many instruments of precision, most of them invented by us. We have said that the patient, rich or poor, must have the advantage of the x-ray, the well-equipped operating room, the extra opportunity to recover through the use of the oxygen tent and serum in pneumonia. The art of medicine, which constituted say four-fifths of the armamentarium of an earlier generation, gives way to a constantly increasing armamentarium of expensive procedure, and it is all to the good if a way can be found to pay the shot.

The Michigan State Medical Society hopes that it has found that way through its plan of voluntary health insurance and the associated group hospital insurance. This has not come about just in the last few months. We attacked the problem at its foundation with our "Survey of Medical Services and Health Agencies in Michigan" completed in 1933, at a cost of ten thousand dollars or more, and for nearly seven years the Michigan State Medical Society has been interested and working on this problem. We believe that this plan of voluntary insurance will be satisfactory because it is to the best interest of both patient and doctor.

Above all, we want what is best for our patients. If there is a better way to practice medicine, we want to practice it that way, but we feel sure that practicing medicine un-

der a system of political control is not best for our patients. We do not want medicine placed on a factory production basis. We want to live by that code which has come down to us over these many centuries, and we want to feel that there is a personal side to the practice of medicine, for that is the heart of medicine. When we urge voluntary insurance instead of compulsory insurance, we have in mind always that the patient under this plan will have the free choice of

physician. For him it means that he is free to choose the kindly sympathetic doctor who understands both him and his disease. For the doctor it means competition with his fellow, the incentive to study and the incentive to work hard that he may excel. Without this incentive, without the personal interest, without the heart motive which is the soul of our guild, the practice of medicine will be a poor thing.

TREATMENT OF PAROXYSMAL HICCOUGH WITH BENZEDRINE SULFATE INHALATION

HENRY A. HANELIN, M.D.

MARQUETTE, MICHIGAN

Paroxysmal hiccough may be defined as a rhythmically involuntary clonic contracture of the diaphragm with the emission of a peculiar, familiar sound which characterizes the phenomena being produced in the larynx by the sudden intake of air resulting from the action of the diaphragm and the coincident closure of the vocal cords. Kremer,⁴ quoted by Brown,¹ classifies the causes as follows:

1. The effect on the central nervous system of psychic influences and emotional disturbances as well as any organic lesions of the brain.
2. Chemical irritation of the respiratory center by substances reaching it through the blood stream (toxic agents, uremia, acidosis, et cetera).
3. Reflex through irritation of sensory fibers in the distribution of the phlegm and sympathetic nerves (thorax and abdomen).

There is another form of hiccough which I have called "paroxysmal hiccough," similar to certain paroxysmal physiological states such as paroxysmal tachycardia and other conditions which come on without apparent cause and persist unless treated promptly, and which may terminate as suddenly as they started. Paroxysmal hiccough is seen very frequently in private practice and the patients, as a rule, present themselves with this annoying symptom usually from one to five hours after the onset of the hiccoughing. The usual story is that the onset occurred without warning while the patient was going about his ordinary tasks and continued until practically every respiration was accompanied by an involuntary contracture of the diaphragm, and as the interval becomes shorter the attack becomes more persistent and the patient be-

comes distressed enough to seek medical relief.

Recently Shaine⁸ called attention to the use of benzedrine sulfate in persistent hiccough and attributes its action to its specific antispasmodic effect upon the gastrointestinal tract which has been so well demonstrated by Myerson and Ritvo,⁵ Ritvo,⁶ Smith and Chamberlin,⁹ Rosenberg and Arens,⁷ and Hill.^{2,3} However, in all these experiments the work was done with the benzedrine sulfate tablets given either in fractional or whole doses of 10 mgs. each. No mention is made of the use of the benzedrine sulfate inhaler as a ready source of treatment available at times when the tablets cannot be obtained. The well-known effect of benzedrine sulfate inhalation in the treatment of congestion of the upper respiratory tract is presumably due to the stimulation of the sympathetic nerve fibers therein, and besides its local manifestations there is usually an accompanying systemic reaction such as palpitation, restlessness, euphoria, insomnia, and occasionally, as so often seen with ephedrine, nausea.

Case Reports

Case 1.—M. A., a young secretary, twenty years of age, consulted me after having had a persistent

paroxysmal hiccough of five hours' duration. The patient was acutely distressed and was unable to go about her work. Not having any benzedrine sulfate tablets available, she was given one inhalation in each nostril of the volatile preparation of benzedrine sulfate and the relief was instantaneous, and without recurrence.

Case 2.—M. T., multipara, aged twenty-six, was operated upon for left ectopic pregnancy and on the second postoperative day began to hiccough, subsequent to which inhalations of benzedrine sulfate were given with complete relief of the symptoms. This case demonstrates very clearly that the inhalation treatment of postoperative hiccough is as effective as the tablet.

Case 3.—W. P., aged thirty-eight, with past history of paroxysmal hiccough which sometimes would persist for days at a time to a point where the patient was unable to swallow water, was given an inhalation of benzedrine sulfate with complete abatement of the symptoms.

Summary and Conclusions

Attention is called to the use of benzedrine sulfate inhalation in the treatment of paroxysmal hiccough which, due to the usual systemic reaction, coincidentally stimulates the sympathetic nerve fibers of the gastrointestinal tract, namely through the thoraco-lumbar chain of sympathetics with subsequent stimulation thereof and release of the smooth muscle spasm due to possibly excessive vagus stimulation.

Three case reports are given, two of which demonstrate the effectiveness of benzedrine sulfate in a paroxysmal type of hiccough and one case of its use following surgery.

Benzedrine sulfate inhalations are effective in controlling the paroxysmal contraction of the diaphragm which gives rise to the characteristic sound known as a hiccough.

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ANALYZE POLIOMYELITIS EPIDEMIC

An epidemic of twenty-two cases of poliomyelitis (infantile paralysis), occurring in Niagara Falls, N. Y., during a period when the attack rates in adjoining areas were markedly low, is reported by Ernest L. Stebbins, M.D., Edward E. Gillick, M.D., Niagara Falls, and Hollis S. Ingraham, M.D., Albany, N. Y., in *The Journal of the American Medical Association* for October 21.

Bulbar paralysis was observed in thirteen of the cases, twelve of whom died. Bulbar paralysis involves a limited section of the brain stem. It affects various muscle groups, especially those of the extremities, mastication, swallowing and respiration. The ages of the afflicted patients varied from 4 months to 21 years, and all but three were less than 10 years of age.

There was a rather definite geographic grouping of cases in the city. Ten of the cases occurred within a radius of three city blocks and all but two occurred in persons residing within ten blocks of the Niagara River. This did not, however, constitute a definite concentration of cases near the waterfront.

The economic status of the families in which cases occurred was in general a little below average, but in none was there evidence of great poverty. The children suffering from the disease almost invariably were especially healthy and well nourished prior to the illness.

No history of direct contact between the patients was obtained, but in a number of instances friends were found to have been common to more than one patient. No multiple cases occurred in any household nor were there any suspicious illnesses among contacts of the patients. No one milk supply was found to have been used by any disproportionate number of the patients. The usual water supply in all but one case was the municipal supply. No history of recent insect bites was obtained in any case.

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Michigan State Medical Society

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NOVEMBER, 1939

"Every man owes some of his time to the up-building of the profession to which he belongs."

—THEODORE ROOSEVELT.

EDITORIAL

THE ANNUAL MEETING

THE big event of Michigan Medicine has come and gone. Many excellent papers were presented, most of which will appear in future numbers of this JOURNAL. This number contains the report of the deliberations of the House of Delegates so that every member, whether present or not, will have an opportunity to follow the discussions of those he has chosen to represent him in the Counsels of the Michigan State Medical Society.

The Annual Meeting in September is the occasion for a change (not entirely) of officers. The change is for the most part a

moving up of men already long experienced, and the retirement of the president.

Dr. Burton R. Corbus, who has had a long experience as councillor, as well as secretary of the society, from a year as president-elect, assumes the office of president. Dr. Corbus is almost too well known to the medical profession of Michigan to require any lengthy introduction. However, for recent members of the medical profession in the state, the following elaboration from *Who's Who* published a year ago when he was made President-elect may not be out of place:

"Dr. Corbus was graduated from the University of Illinois in 1900 with the combined degrees of B.S. and M.D. He has practiced continuously in Grand Rapids since 1906, where he has confined his work to internal medicine. His ability in his own city has been recognized by his appointment as chief of the staff of the Butterworth Hospital for five years. He was president of the Kent County Medical Society in 1912. Dr. Corbus is a fellow of the American College of Physicians and a member of the American Gastroenterological Association. With the appointment of a successor as secretary of the Michigan State Medical Society in the person of Dr. L. Fernald Foster, Dr. Corbus retired from his erstwhile activities in organized medicine. Not entirely, however, for since the resignation of President Ruthven as chairman of the Joint Committee on Health Education, Dr. Corbus was appointed to this position, in which he is now active in the education of the public in the popularization of medical knowledge. This itself has become a very important activity of the Joint Committee, which not only includes the Michigan State Medical Society, but a score of allied organizations whose interest is public and private health. Both the Michigan State Medical Society and Dr. Corbus are to be congratulated on the doctor's appointment as president-elect for 1938-39."

Doctor Corbus, as mentioned, has long shown profound interest in the subject of taking the layman into the confidence of the medical profession, for such is in a word the object of the Joint Committee.

Dr. Paul Urmston of Bay City was made president-elect. This is a fitting recognition of Dr. Urmston's service as chairman of the Council, which also means chairman of the Executive Committee of the Council, which meets each month of the year except September and January, when the entire Council meets in session.

Dr. Henry R. Carstens succeeds Dr. Urmston as chairman of the Council. Dr. Carstens comes to the position with a wide knowledge and experience of medical executive affairs. He has been a member of the Council for a number of years, as well as

EDITORIAL

chairman of the finance committee, which has meant membership of the executive committee. He has served efficiently both as

position, namely, chairman of the County Societies Committee. This, of course, will entitle Dr. Cummings to membership on the



BURTON R. CORBUS



PAUL R. URMSTON



HENRY R. CARSTENS



HOWARD H. CUMMINGS

president-elect and president of the Wayne County Medical Society, as well as Michigan representative on the board of the American College of Physicians.

Dr. Howard H. Cummings has been a member of the Council representing the 14th district for a number of years. In the coming Council, he is given a newly created

Executive Committee. As intimated, Dr. Cummings has served long and ably as a member of the Council and now the profession will have the benefit of his mature judgment in the monthly administration of the affairs of the Society.

Dr. A. S. Brunk has been appointed vice-chairman of the Council. Dr. Brunk has

JOUR. M.S.M.S.

been a member of the Council for ten years and as chairman of the Publication Committee, he was also a member of the Execu-

He performed Mexican border service and served as Captain and Major in the Medical Corps in the World War; his overseas serv-



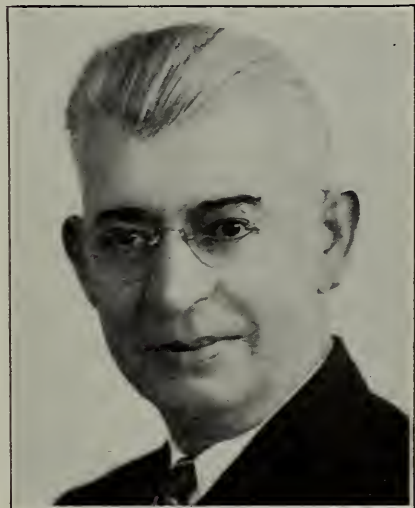
A. S. BRUNK



ROY C. PERKINS



O. D. STRYKER



JAMES J. O'MEARA

tive Committee. He was president of the Wayne County Medical Society in 1929.

Dr. Roy C. Perkins, who succeeds Dr. Urmston as councillor for the tenth district, was born at Harbor Beach, Michigan, July, 1878. He attended the Harbor Beach High School and the University of Michigan, graduating from the University Medical Department in June, 1903. He practiced medicine at Harbor Beach, 1903-04, and then moved to Bay City, where he has continued in the practice of medicine until the present time, except for time spent in U. S. Army service, June, 1916, to June, 1919.

ice covered the period from February, 1918, to May, 1919.

He is a member of the Bay County Medical Society; Michigan State Medical Society; and American Medical Association since 1905; he was president of Bay County Medical Society 1912; member of the Mercy Hospital Staff, president of Staff 1926-27; member of the General Hospital Staff, president of Staff 1935-36; delegate to Michigan State Medical Society from Bay County Medical Society 1935-39. He was appointed to the State Council of Health by Gov. Dickinson, May 26, 1939.

Dr. O. D. Stryker, new speaker of the House of Delegates, was graduated from Calvin College with the degree of A.B., and he obtained his M.D. from Northwestern University. He spent an internship at Grace Hospital, Detroit. Since 1929, he has been in general practice in Fremont. Dr. Stryker has been very active in civic affairs in Fremont, having served three terms as Mayor of the city and also as a member of the board of directors of the Chamber of Commerce. Dr. Stryker is a member of the staff of the Gerber Memorial Hospital in Fremont.

Dr. James J. O'Meara of Jackson is deputy speaker of the House of Delegates. Dr. O'Meara attended the University of Michigan and Northwestern University, graduating from the latter in 1911, after which he spent his internship in Oak Park Hospital, Chicago. He began practice in Jackson in 1912, spent 1918-1919 in the Army. He returned to Jackson, where he has been in practice ever since. He is on the staff of Mercy Hospital and W. A. Foote Memorial Hospital.

Dr. Vernon Moore of Grand Rapids was made chairman of the Finance Committee. Dr. Moore is counsellor from the Fifth District.

SYMPTOMS IN RELATION TO NORMAL FUNCTION

AS the leading contributed article in this JOURNAL appears a paper by Dr. Harold I. Lillie of the Mayo Clinic, Rochester, Minnesota, on Certain Symptoms Common to the Nose, Explained on a Physiologic Basis. This paper was read at the annual meeting of the Michigan State Medical Society. We have called attention from time to time to the importance of the preservation of papers presented at the annual meetings. There are few more important subjects for Michigan doctors than that chosen by Dr. Lillie, when one considers the prevalence of upper respiratory infection in this state. The author of the paper emphasizes the very important subject of the rhinologist. The specialist in rhinology or otolaryngology, the term used to designate that department of medical practice which is concerned with the ear, nose and throat, is doubtless familiar with the details treated in Dr. Lillie's

paper. The general practitioner, however, who sees a great number of these cases may not be so familiar. The time was when anatomy was considered the most important subject for the surgeon and physiology for the internist. This idea has undergone considerable modification within recent years, when it has been found that it is impossible to practice good surgery without a thorough knowledge of physiology. This is true of abdominal surgery as well as surgery of the upper respiratory passages. Dr. Lillie goes on to say that rhinology has made great progress during the past twenty-five years, to the effect that it is at the present practiced on a more conservative and scientific basis. It was formerly practiced to a large extent on an anatomical basis, with the result that many patients were subject to destructive intranasal operations without their symptoms being relieved.

The tendency of modern specialization in medicine fortunately is to see the patient as a whole and not a detached organ, the function of which has been altered by pathology. The author presents many facts of the present-day knowledge on nasal physiology and emphasizes the fact that perhaps no other organ is affected by environment to the same extent as the nose. For instance, there is a direct relation between the nose and climate, which includes not only temperature change, but the humidity as well as irritating substances in the air itself.

The nasal membranes of adolescents are found much more responsive to environmental changes than those of older persons. This may account for the tendency to common colds in the adolescent and young adult.

A careful study of Dr. Lillie's paper will shed valuable light on various conditions which confront not only the rhinologist but the general practitioner as well.

Michigan Medical Service

Read pages 960 to 963 for information concerning this service

President's Page

THE MEDICAL SERVICE PLAN

EIGHT years of study, and now "The Medical Service Plan." Although not undertaken with that objective, we challenge, with this plan, the forces which claim that socialized medicine under a Governmental Bureaucracy is the *only* way.

This is not a new pattern for the practice of medicine. It is the old traditional pattern fitted to a new economic method.

Within the plan the doctor continues to compete fairly with his fellows through his endeavor to supply a better *quality* of medical care to his patients.

Keeping up with the constantly advancing science of medicine through reading and postgraduate courses will continue to be his best bet to win in the competitive field.

The patient chooses his own doctor. When the catastrophic illness hits, with a peace of mind unshattered by money troubles, he carries through on his own, no borrowing, no charitable relief, no loss of self respect, no impoverishment.

Perhaps it is not the final answer to the problem. It *must* be something of an experiment, and it will be successful in direct proportion to the sincere effort which is put into it by each member of the Society.

Yours, most sincerely,

Burton T. Corbus

President, Michigan State Medical Society.

Department of Economics

L. FERNALD FOSTER, M.D., Secretary

COMMITTEES OF THE MICHIGAN STATE MEDICAL SOCIETY

WE HAVE now entered upon a new year of activities in the Michigan State Medical Society with new committee personnel. Time was when an appointment to a committee was rather an empty honor, entailing little or no effort on one's part. With an ever enlarging scope of activity, and the need for sustained effort in medical affairs, a committee appointee now becomes a very integral part of organized medicine.

Over twenty committees now comprise the committee roster of the Michigan State Medical Society. We review with distinct pride the splendid contributions these groups have made in the past, especially in recent years. The Legislative Committee has developed outstanding public relations and has done much to develop a better understanding of health problems in the minds of the laity. The Committee on Postgraduate Education maintains a most unique program of medical education, having pioneered in this work in the United States. The Committees on Distribution of Medical Care, Public Relations, Joint Committee on Health Education, Medico-legal, Radio and Membership have greatly enhanced the objectives of their respective committees. The Committee on Ethics has made its influence felt throughout the fifty-four county components, to the end that a finer coöperation between individual physicians is definitely apparent. This year, a new Committee on Child Welfare has been appointed, which, along with the Committees on Cancer, Maternal Health, Mental Hygiene, Syphilis Control, Tuberculosis, Pneumonia, Occupational Diseases and Degenerative Diseases, collaborate, through their chairmen, in making up the activities in Preventive Medicine. This will develop a finer correlation between the various health activities of the large group of committees. The Advisory Committee to the Woman's Auxiliary will guide the endeavors of that rapidly growing organization, whose contributions to good medical practice and public health cannot be overestimated.

The committee organization of the Michigan State Medical Society is so developed as to provide the greatest possible efficiency in coördination of effort and realization of worthy objectives. Every plan and project is filtered through some committee and finally acted upon by the Council or its Executive Committee.

President Burton R. Corbus has announced his new appointments for 1940, and he is deserving of the finest commendation for his choice of personnel. He has retained many committeemen who have labored so effectively in the past, and has added thereto new men, physicians who will bring new thoughts and ideas to the many fine programs which have been so well sustained by the previous committees.

It is unfortunate that each of our more than 4,300 members cannot serve on some committee, but progress will be maintained by carrying on from year to year with new workers—physicians with the enthusiasm to maintain the traditions of medicine, and develop the finest type of health programs in Michigan.

The Michigan State Medical Society is grateful to every committeeman. An appointment to any committee entails considerable sacrifice of time, effort and expense. It is a responsibility which every appointee has assumed with a most commendable spirit.

AFFLICTED-CRIPPLED CHILDREN SCHEDULES REINSTATED

THE Michigan State Medical Society Council and the Crippled Children Commission had a three-hour conference in Grand Rapids, September 20, discussing the one-third reduction in schedules A and C made by the Commission in June. Other inadequacies covering the medical care of afflicted and crippled children under these acts were frankly discussed, and a program of coöperative action, for the benefit of the children, was decided upon.

Schedules A and C for Afflicted and Crippled Children have been restored by

action of the Commission and are to become effective on October billing. In a letter to the Michigan State Medical Society dated October 6, 1939, W. S. Ramsey, M.D., Director of the Commission, states: "This is to inform you that the Michigan Crippled Children Commission has reinstated the fees for the care of afflicted and crippled children as given in schedule A and schedule C, *with the exception of those fees which exceed the legal limit of \$50, effective as of October 1, 1939.*"

Inadequate Deficiency Appropriation

With reference to bills for services performed prior to June 30, 1939, on which the State is paying 67.2212 per cent, in those few cases where the parents or guardians reimburse the State for the full amount of the hospital and doctor bill, Auditor General Vernon J. Brown states, in a letter dated October 6: "We wish to assure you that where the State of Michigan has collected from parents the full amount of the bill (under the Afflicted-Crippled Children Laws), that we will immediately forward our warrant to the Doctor of Medicine and to the Hospital for any sum still due them."

A TAX ON YOUR ACCOUNTS RECEIVABLE

THE new Intangible Tax Law (Michigan Public Act No. 166 of 1939), which will apply to physicians, provides "for the imposition and the collection of a specific tax upon the ownership of intangible personal property." The law went into effect on October 1, but the first levy of tax will be for the calendar year 1940 so that returns will not be filed until after January 1, 1941.

The tax imposed amounts to 6 per cent of the value of the income from income-producing personal property and one-tenth of 1 per cent of non-income producing property. Of particular interest will be the effect on accounts receivable, which are considered intangible personal property subject to the tax.

The Michigan State Tax Commission is now developing rules and regulations to govern the enforcement of the law. As soon as this information is available, an analysis of its application to physicians will be published in THE JOURNAL.

NOVEMBER, 1939

USE OF TITLE "DOCTOR"

THE Michigan Supreme Court, on September 6, 1939, decided a case from which the following sentence was quoted: "A chiropractor is not permitted to use the terms 'Doctor,' 'Physician' or 'Surgeon' (2 Comp. Laws, 1929, Sec. 6739; Stat. Ann., Sec. 14-5-33)."

Attorney General Thomas Read, on September 18, 1939, rendered an opinion which included this language: "As to the right of chiropractors, optometrists and chiropodists to use the title 'Doctor' in connection with the practice of their respective professions . . . the evident purpose of the sections of the medical practice act is to prevent deception by those not authorized to practice medicine under the terms of the act in using any designation or prefix of title indicating that they are so licensed to practice. The two sections (6744 and 6745 of the Comp. Laws of 1929) should be read and considered collectively in determining whether any given case falls within the scope of the act in question. Chiropractors are prohibited from using the prefix or appellation or any abbreviations thereof in any manner in connection with their practice."

REASONABLE DEGREE OF LEARNING AND SKILL

EVERY physician, when he undertakes to diagnose, operate, or prescribe for a patient, enters into a distinct contractual relationship with that patient. Upon this relationship the law imposes certain definite mutual obligations and duties. The physician or surgeon must possess, and the law "places upon him the duty of possessing, that reasonable degree of learning and skill that is ordinarily possessed by physicians and surgeons in the locality where he practices, and which is ordinarily regarded by those conversant with the employment as necessary to qualify him to engage in the business of practicing medicine and surgery." —From "Law and the Practice of Medicine," by W. S. Jordan, Jr., *Scalpel*, publication of Alpha Epsilon Delta, for December, 1937.

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MICHIGAN MEDICAL SERVICE—A DIGEST

THE Michigan State Medical Society recently gave endorsement to the medical service plan, "Michigan Medical Service," which has been developed after nine years of careful study as an answer to the problem of certain groups in paying for medical services.

Although full information concerning Michigan Medical Service has been made available to Councilors, Delegates, and members at large, both prior to and during the Annual Convention in Grand Rapids, further data explanatory of the Michigan Medical Service plan will be published from time to time in THE JOURNAL. For their own interest, as well as the interest of their patients, physicians should familiarize themselves fully with the provisions of the Michigan Medical Service plan.

What Michigan Medical Service Is

Michigan Medical Service is a voluntary non-profit group medical care corporation organized under special enabling legislation (Act No. 108 of 1939) passed by Michigan's Legislature under the sponsorship of the Michigan State Medical Society. Subscribers to this medical service plan will be entitled to designated medical services from doctors of medicine.

The purpose of Michigan Medical Service is to assist residents of Michigan in the low income group to obtain the services of doctors of medicine by providing for medi-

cal services in return for small monthly subscription payments.

Almost a decade of surveys and studies by the Michigan State Medical Society at a cost of over \$30,000 has indicated convincingly that the primary problem is the economic inability of certain classes of the population to utilize existing medical services and facilities. Consequently, the Michigan State Medical Society has developed Michigan Medical Service as a means to assist these persons to make use of available medical services.

Basis for the Medical Service Plan

Many physicians and lay persons have asked just what the basis for the proposed medical service plan is. From the following major sources of information, the fundamentals of a medical service plan have been adopted for inclusion in the Michigan Medical Service plan:

1. Much of the essential information for a sound medical service plan to assist people

of Michigan to pay for medical services was accumulated in the surveys by the Michigan State Medical Society—particularly the Report of the Committee on Survey of Medical Services and Health Agencies, which consists of 175 pages and embodies three years of research.

2. The Committee on the Distribution of Medical Care of the Michigan State Medical Society has devoted much of its time

MICHIGAN MEDICAL SERVICE FULFILLS A.M.A. PRINCIPLES

Particular attention is called to the fact that the Michigan Medical Service plan fulfills the requirements of the ten principles recognized as fundamental for a sound medical service plan by the American Medical Association:

1. All features of the medical service plan will be under the control of the medical profession.
2. No third party will come between the patient and his physician. The responsibility for the character of the medical service will be borne by the medical profession.
3. Subscribers will have free choice of a legally qualified doctor of medicine.
4. The method of giving service will retain a permanent, confidential, "family physician" relationship between the physician and the patient.
5. Medical service is considered separately from hospital service.
6. The cost of the payments for medical services will be borne by the patient in accordance with his income status.
7. There is no connection between the medical service and cash benefits for the patient.
8. All legally qualified doctors of medicine who wish to give services under the conditions established will be included.
9. The group to be served will be below the "comfort level" standard of income.
10. There will be no restrictions on treatment or prescribing which are not formulated and enforced by the organized medical profession.

during the past several years to a consideration of the problems of a medical service plan.

3. A committee of the Washtenaw County Medical Society conducted a special study of medical costs in the operation of medical service plans in conjunction with the University of Michigan and the Michigan State Medical Society. Other county medical societies such as those in Wayne and Calhoun counties have collected material relative to the organization of a medical service plan.

4. Much information has been obtained from studies of the incidence of illness and the costs of medical care such as:

(a) The special study of the Bureau of Medical Economics of the American Medical Association, which determined the cost of medical care for a representative group of 1,000 persons.

(b) The 27 publications constituting the survey made by the Committee on the Costs of Medical Care.

(c) Several studies of the Metropolitan Life Insurance Company.

(d) A state-wide survey by the California State Medical Association.

(e) Special studies on various aspects of medical service plans by other agencies and medical societies.

5. Perhaps the most important source of information on which Michigan Medical Service was based was the actual experiences obtained from operating medical service plans such as the medical service bureaus in Washington and Oregon of which there are now seventeen in operation; the Medical Service Bureau, Atlanta, Georgia; Windsor Medical Service, Inc.; Associated Medical Services of Toronto; California Physicians' Service, San Francisco; Superior Health Association, Superior, Wisconsin; Mutual Health Service, Washington, D. C.; and Hawaii Medical Service Association, Honolulu.

The Michigan Medical Service Plan

For an understanding of the Michigan Medical Service plan itself, the following outline indicates the fundamental principles:

Administration.—Michigan Medical Service will be administered by a Board of Directors consisting of 11 to 35 representatives of the public and the medical profession.

The first Board of Directors will be elected by the incorporators who are the members of the Executive Committee of The Council and Officers of the Michigan State Medical Society. Thereafter, the members of the House of Delegates of the Michigan State Medical Society will elect the Directors, one-third to be representatives of the public.

The customary officers and committees will be elected to conduct the activities of Michigan Medical Service. Of particular interest to physicians is the arrangement for the establishment of local Medical Advisory Committees by the medical profession in each locality so that professional judgment will guide the relations with physicians concerning participation, fees, and the rendering of services.

The Articles of Incorporation of Michigan Medical Service have already been certified by the Attorney General. The Michigan State Medical Society has advanced the necessary working capital. The plan will go into effect in the near future and its operation will be under the direct supervision of the Insurance Department of the State of Michigan.

Membership Requirements.—All employed persons under the age of 65 who can be enrolled in groups of 25 or more, will be eligible for membership. Experience has shown that group enrollment is a definite requisite, at least during the initial period of operation. Subscribers may enroll their dependents, including the husband or wife and the children under 21 years of age.

An annual income not in excess of \$2,000 for individual subscribers and \$2,500 for subscribers and their families is tentatively proposed as a membership requirement. This income limitation has been determined on the basis of a careful analysis of the income distribution of the population in Michigan. There have been some suggestions that the income limit be lowered and some that it be raised. The proposed limit is the "comfort level" of eligible subscribers and all persons with lower incomes are considered as deserving of the benefits contemplated under the medical service plan. It is of interest that most of the other medical service plans have adopted this or a higher income limit. In the California Physicians' Service plan,

the limit is \$3,000 per family, and the new Pennsylvania law designates \$3,120 as the family income limit.

Residents of Michigan who are on relief or are dependent on public assistance will be entitled to home and office medical services under the new Social Welfare Law. A Medical Relief Division of Michigan Medical Service can be organized to offer home and office medical services to persons in the several relief or public assistance groups, provided the per person amount required for the costs of such services will be paid to Michigan Medical Service out of state funds supplemented by county funds. The development of this program for the consideration of the Social Welfare Commission will be undertaken in the very near future.

Benefits.—Subscribers to Michigan Medical Service and their dependents will be entitled to receive the following benefits:

1. Medical and surgical care from doctors of medicine of their own choice, including home, office and hospital visits.
2. Consultation services and special medical services such as x-ray, laboratory and anesthesia services performed by doctors of medicine.
3. Obstetrical services after membership for a period of 12 consecutive months.
4. Medical services necessary to establish a diagnosis for tuberculosis, venereal diseases, cancer, and nervous or mental conditions.

After the payment of the first \$5.00 incurred for medical service, the subscribers will be entitled in any one subscription year up to:

- \$325 worth of medical services for individual subscribers
- \$550 worth of medical services for husband and wife
- \$875 worth of medical services for a family.

The payment by the subscriber of the initial expense for medical services is a requirement that has been found necessary by operating medical service plans to avoid excessive demands for trivial services. Such a provision will not prove a barrier to the obtaining of needed preventive or curative medical services. Subscribers who require services will pay the first \$5.00 of medical charges only once in a subscription year, re-

gardless of the number of persons entitled to benefits under the subscription payment. For example, if one member of the family has required medical services, then after the payment of the first \$5.00 of charges incurred, he and the other members of the family will be entitled to an aggregate of \$875 worth of medical services without the payment of any other initial charge.

Limitations.—There are as few restrictions as possible. However, it is obvious that some limitations are necessary to bring the cost of the plan within the incomes of the eligible subscribers.

The benefits of the Michigan Medical Service plan will be limited to the professional medical services of doctors of medicine. Dental care, nursing service, drugs, appliances, and hospitalization are not included. The Michigan Society for Group Hospitalization, sponsored by the Michigan Hospital Association, offers hospital services on a similar group payment basis and has already enrolled more than 40,000 members.

Medical services will not be provided as a benefit of the Michigan Medical Service plan for alcoholism, drug addiction, and self-inflicted injuries, or conditions which are compensable under the U. S. Employees' Compensation Act, the Workmen's Compensation Act of Michigan, or other special legislation. Such conditions which occur through the subscriber's own wilful volition or for which the subscriber is entitled to medical services under special legislation will not be included.

Costs.—The subscription rates proposed for Michigan Medical Service are:

- \$2.00 per month for individual subscribers
- \$3.50 per month for husband and wife
- \$4.50 per month for a family

A registration fee of \$1.00 will be charged only in the first subscription year to provide for part of the cost of enrolling members.

The actuarial basis of this rate structure has been carefully determined from the basic sources of information previously indicated. The annual income per person which will be received gives considerable assurance of stability and if a surplus is accumulated it can be used to lower the

subscription rate or to increase the benefits.

The employer can also contribute part of the cost to help his employees obtain the benefits of this plan. For those persons who are destitute or who are in the very low income group—the indigent or medically indigent—special arrangements may be made with governmental agencies or private agencies for the payment of part or all of the subscription cost. This is specifically a provision of the enabling act.

The subscription rates are as low as possible in view of available information concerning costs under medical service plans. To offer lower rates would simply mean endangering the quality of the medical services and the undermining of the entire program.

A Digest of the Arrangements between Physicians and Michigan Medical Service will appear in the next issue of *The Journal*.



Three Presidents

Henry A. Luce, M.D., Detroit, retiring president of the Michigan State Medical Society; Rock Sleyster, M.D., Wauwatosa, Wisconsin, president of the American Medical Association, and B. R. Corbus, M.D., Grand Rapids, president of the Michigan State Medical Society—President's Night, Grand Rapids convention of the Michigan State Medical Society, September 20, 1939.

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PRESIDENT'S MESSAGE

First, I wish to express my gratitude to the members of the Woman's Auxiliary for the honor and privilege of serving as their President. When I review the work of my predecessors, I realize the great responsibility which I have assumed! However, with the able help of our other officers, the hard-working committees, and with the cooperation of all members of the Woman's Auxiliary, I look forward confidently to twelve months of continued accomplishment by our organization.



When the House of Delegates of the Michigan State Medical Society approved the Annual Report of the Advisory Committee to the Woman's Auxiliary, in Grand Rapids on September 18, it endorsed the following recommendation: "May we invite your attention to the advisability of the State Society's formulating a directional program for all Auxiliary activities. . . . We urge that this be given consideration."

The Council of the Michigan State Medical Society has kindly followed this suggestion. It recommends the following activities as part of the Woman's Auxiliary program during 1939-40:

1. The organization of an Auxiliary in every county of the state, so that benefits may be enjoyed by physicians, their wives, and the public.
2. Continuation of the program of public relations:
 - (a) to bring to the people facts on the history and benefits of Medicine so that the public receives authentic information, and anti-medical propaganda unjustly prejudicial to physicians is counteracted.
 - (b) particularly during the coming year to emphasize the benefits accruing to our people from "Michigan Medical Service," the M.S.M.S. plan for group medical care.
3. A definite campaign of individual activity by members of the Woman's Auxiliary to the end that every Michigan physician takes advantage of some postgraduate work during the year (including the formal postgraduate courses sponsored by the Michigan State Medical Society and the University of Michigan, attendance at the Convention of the State Society, and at county medical society meetings, and the reading of the M.S.M.S. and other medical journals). Woman's Auxiliary meetings planned for the same night as county medical society meetings will encourage greater attendance at the medical meetings.

Physicians' wives should ever remember that they are leaders of thought and action in their communities and circles, and that they should assume this leadership—in the interests of Medicine. When this opportunity for leadership is neglected by the wives of doctors of medicine, frequently it is appropriated by others whose views on Medicine are either unsound or antagonistic.

MARY C. CHRISTIAN, *President*
400 Everett, Lansing, Michigan

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MICHIGAN STATE MEDICAL SOCIETY

SEVENTY-FOURTH ANNUAL MEETING

Proceedings of House of Delegates

Pantlind Hotel, Grand Rapids, Michigan

September 18, 1939

Monday Morning Session

September 18, 1939

The Annual Meeting of the House of Delegates of the Michigan State Medical Society convened at 9:20 A. M. at the Pantlind Hotel, Grand Rapids, Michigan, with the Speaker, Dr. Philip A. Riley, presiding.

THE SPEAKER: I now declare this House of Delegates to be in official session.

Following is the roll call for the three sessions:

RECORD OF ATTENDANCE

COUNTY	DELEGATE	Session		
		1st	2nd	3rd
1. Allegan	E. T. Brunson	x	x	x
2. Alpena-Alcona-Presque Isle	Not represented			
3. Barry	R. B. Harkness	x	x	
4. Bay-Arenac-Iosco-Gladwin	R. C. Perkins	x	x	x
5. Berrien	W. C. Ellet	x	x	x
6. Branch	R. L. Wade	x	x	x
7. Calhoun	Harvey Hansen	x	x	x
	A. T. Hafford	x	x	x
8. Cass	K. C. Pierce	x	x	
9. Clinton	G. H. Frace	x	x	x
10. Chippewa-Mackinac	W. F. Mertaugh	x	x	
11. Delta-Schoolcraft	Wm. LeMire	x	x	x
12. Dickinson-Iron	E. M. Libby	x	x	
13. Eaton	Paul Engle	x	x	x
14. Genesee	F. E. Reeder	x	x	x
	Robert Scott	x	x	x
	D. R. Brasie	x	x	x
15. Gogebic	Not represented			
16. Grand Traverse-Leelanau-Benzie	C. E. Lemen	x	x	x
17. Gratiot-Isabella-Clare	Myron G. Becker	x	x	x
18. Hillsdale	Luther Day	x	x	x
19. Houghton-Keweenaw-Baraga	Alfred LaBine	x	x	x
20. Huron-Sanilac	C. W. Oakes	x	x	x
21. Ingham	C. F. DeVries	x	x	x
	H. W. Wiley	x	x	x
	W. H. Welch	x	x	x
22. Ionia-Montcalm	R. R. Whitten	x	x	
23. Jackson	P. A. Riley	x	x	x
	J. J. O'Meara	x	x	x
24. Kalamazoo	Fred M. Doyle	x	x	x
	I. W. Brown	x	x	x
25. Kent	C. F. Snapp	x	x	x
	A. V. Wenger	x	x	
	P. W. Kniskern	x	x	x
	W. R. Torgerson	x	x	x
	G. H. Southwick	x	x	x
	H. M. Best	x	x	x
26. Lapeer	A. W. Chase	x	x	x
27. Lenawee	H. G. Huntington	x	x	x
28. Livingston	Henry E. Perry	x	x	x
29. Luce	D. Bruce Wiley	x	x	x
30. Macomb	E. A. Oakes	x	x	x
31. Manistee	V. Vandeventer	x	x	x
32. Marquette-Alger	H. B. Hoffman	x	x	x
33. Mason	G. H. Yeo	x	x	x
34. Mecosta-Oscoda-Lake				
35. Menominee	H. T. Sethney	x	x	x
36. Monroe	D. C. Denman	x	x	x
37. Midland	E. H. Meisel	x	x	
38. Muskegon	E. O. Foss	x	x	
	E. N. D'Alcorn	x	x	

COUNTY	DELEGATE	Session		
		1st	2nd	3rd
39. Newaygo	O. D. Stryker	x	x	x
40. Northern Michigan (Antrim-Cheboygan-Emmet-Charlevoix)	W. H. Mast	x		
	F. C. Mayne		x	
41. Oakland	Aaron Riker	x	x	x
	Richard Olsen	x	x	x
	Otto O. Beck	x	x	x
42. Oceana	Merle G. Wood	x	x	
43. O.M.C.O.R.O.	C. R. Keyport	x	x	
44. Ontonagon	Wm. F. Strong			x
45. Ottawa	A. E. Stickley	x	x	x
46. Saginaw	C. E. Toshach	x	x	x
	W. K. Anderson	x	x	x
47. St. Clair	A. L. Callery	x	x	x
48. Shiawassee	A. L. Arnold	x	x	x
49. St. Joseph	R. A. Springer	x	x	x
50. Tuscola	T. E. Hoffman	x	x	
51. Van Buren	Wm. R. Young	x	x	x
52. Washtenaw	John A. Wessinger	x	x	x
	Dean W. Myers	x	x	x
	L. J. Johnson	x	x	
53. Wayne	R. H. Pino	x	x	x
	J. M. Robb	x	x	x
	W. D. Barrett	x	x	
	R. L. Novy	x	x	x
	T. K. Gruber	x	x	x
	E. D. Spaulding	x	x	x
	C. E. Umphrey	x	x	x
	R. M. McKean	x		x
	Douglas Donald	x	x	
	G. C. Penberthy	x	x	x
	A. E. Catherwood	x	x	
	W. B. Cooksey	x	x	x
	G. S. Bates	x	x	x
	L. J. Hirschman	x	x	x
	Wm. J. Stapleton	x	x	x
	H. F. Dibble	x	x	
	H. W. Plaggemeyer	x	x	x
	R. C. Jamieson	x	x	x
	A. P. Biddle	x	x	x
	C. F. Brunk	x	x	x
	P. L. Ledwidge	x	x	x
	C. E. Dutches	x	x	x
	Allan McDonald	x	x	x
	L. J. Bailey	x	x	x
	L. W. Shaffer	x	x	x
	C. Fremont Vale	x	x	
	C. K. Hasley	x	x	x
	L. T. Henderson	x	x	x
	J. A. Kasper	x	x	x
	H. J. Kullman	x	x	
	E. R. Witwer	x	x	x
	Wm. P. Woodworth	x	x	x
	S. E. Gould	x	x	x
	G. L. McClellan	x	x	x
	Wm. S. Reveno	x	x	x
	C. K. Valade	x	x	x
54. Wexford-Kalkaska-Missaukee	W. Joe Smith	x		

THE SPEAKER: Your Reference Committees are in the Handbook. There are a few changes: Dr. Snapp was appointed to the Reference Committee on Reports of Standing Committees in place of Dr. Spinks; the Committee on Officers' Reports will be headed by Dr. Catherwood. Your place of meeting will be announced before the session is over.

Dr. M. H. Hoffmann of Wayne County, Vice Speaker, took the Chair.

THE VICE SPEAKER: The next order of business is The Speaker's Address.

I. Speaker's Address

THE SPEAKER: I promised the Executive Committee about a month ago, in view of our long program, that I would forego the pleasure of talking to you for a half hour or so and turn the time over to the interests of this new group medical care plan. However, I want to take this opportunity to extend a hearty welcome to all who have come to this session. This is our seventy-fourth meeting and I think it will be the greatest meeting of all seventy-four.

We have an excellent scientific program which covers the practice of medicine and surgery in all its branches, and it is to be presented by the leaders of our profession. Our technical exhibitors are here, one hundred in number. They have brought their displays from many distant places. We have new books, new instruments, new equipment for office and hospital on display here, and it will afford you an excellent opportunity to take advantage of any of these things which you might need.

Also on the business side of medicine this meeting promises to be a very interesting one. We have coming up for discussion, as you know, our Michigan Medical Service plan, which was presented to you informally last evening. I trust that many of your questions have been ironed out. However, if you are still in the dark on any of that today, do not hesitate to get on your feet and ask the questions you so desire. We must handle this thing with great care, and I sincerely hope that all of our decisions will abound with wisdom.

A year ago, if you remember, we had a meeting in Detroit, and the Committee on the Distribution of Medical Care brought in a tremendous report. It took reams of paper to print it. We cancelled our golf tournament on Sunday afternoon and devoted Sunday afternoon and Sunday evening to a discussion of this report. At that meeting the House of Delegates voted to continue the study of this proposition and to report back later at a special meeting to be held some time in the winter. About the same time the A.M.A. was holding a special meeting of its House of Delegates in Chicago to consider some of the programs which we were endeavoring to undertake. They had been indicted by the Federal Government for violation of the Sherman Antitrust Law and they had the Wagner Bill coming up in the offing. On January 8, 1939, we held a Special Meeting of our House of Delegates in Detroit and a fairly concrete report was brought in by the Committee on Distribution of Medical Care. At that meeting the House of Delegates, after much discussion, voted to go ahead, continue the study, and to empower The Council to cooperate with other groups in the formation of a non-profit group medical care organization.

Since that time our plan has been taking definite shape and it was presented to you last evening. Today we are to discuss it and vote on it.

This has been a big year all the way through as far as the status of medicine goes. The officers of your Society have had to work harder this year than any year I know of. They have put in a lot of work and I want to take this opportunity to express my appreciation to them for the work they have done.

Medical economics is not the only subject we have for discussion today. We have eighteen or nineteen other Standing Committees which have done a great amount of work during the year. These reports are printed in the Handbook. The

Chairmen are going to be called on today to discuss the highlights of these reports.

THE VICE SPEAKER: The Speaker's Address will be referred to the Committee on Officers' Reports.

I will now turn the meeting back to The Speaker.

Dr. Riley resumed the Chair.

THE SPEAKER: Will our hard-working President please step forth? (Applause)

II. President's Address

President Henry A. Luce presented the address of the President.

The year of 1938-39 of the Michigan State Medical Society had certain objectives designated by the society through its House of Delegates. Objectives laid out at the beginning of the year were in these recommendations:

1st. That aid be given to the establishment of Voluntary Hospital Insurance provided it did not include the services of a Doctor of Medicine.

2nd. That detailed studies and tentative development of a voluntary group medical care plan be consummated.

3rd. That medical relief for the governmental assistance group be developed with proper health and administrative safeguards.

At the Special Meeting of the House of Delegates in January, 1939, the House of Delegates empowered the Council of the Michigan State Medical Society to proceed with voluntary group medical care plans and to sponsor necessary legislation to that end. The general purposes of the organization, i.e., "to promote the science and art of medicine and the protection of public health and the betterment of the medical profession," have continued to be objectives along with the above specific directions.

Reports of the various committees, as presented in the handbook and as will be presented from the floor today, speak for themselves. The Council and the Executive Committee of the Council have complied with the directions given to them. Final approval or disapproval rests with you at this meeting. It is my opinion that the work laid out has been developed to a most satisfactory degree and deserves your approval and sustained support. The credit for the work rests upon so many faithful workers that to enumerate them would resemble the roll call of the society's membership. To each and everyone my most sincere appreciation and gratitude is herewith extended.

The doctor who does not interest himself in society activities is losing half the joy of medical achievement. To have helped in the advancement of the science of medicine and to have brought that science closer to the people is a satisfaction that must be experienced to be appreciated. Some who have followed the dictum "give till it hurts" and have done so to the organizational activities of the society occasionally pause and wonder if it is worth while. They see a few members of the profession who practice medicine purely as a business, and take no interest in the broader aspect of the profession of medicine in its relation to society or the advancement of the science of medicine. They are truly parasites, living off the efforts of others. Happily this represents only a minority group. Of those who serve humanity in the traditional manner, I can only speak in the most eulogistic terms.

The standards of practice and the advancements of education in medical science have proceeded in

a gratifying manner due to the activities and leadership of the Postgraduate Medical Education Committee. According to the report of the National Committee of Graduate Medical Education out of 24 states visited for the purpose of analysis of postgraduate educational activities, Michigan leads in most nearly approaching educational ideals. This activity is especially worthy of note at this time because it is unmatched by any country that has replaced the competitive form of medical practice by some form of socialized or federalized type of medicine.

The past year being a legislative year brought great responsibility upon the legislative committee, especially upon the chairman, Dr. Harold A. Miller. As usual cults and political agencies swarmed the legislative halls in Lansing. The medical society of the State of Michigan has guarded the health of the public for many years and under the able guidance of this year's chairman, the health of our commonwealth was protected from many destructive legislative acts. The chairman and committee personnel deserve high commendation for their accomplishment. In like manner each and every committee has performed its duties and contributed towards the accomplishment of the past year. On behalf of the Society, I gratefully express appreciation.

The consideration of the "Michigan Medical Service" will occupy the major part of your attention at this meeting. Decisions are rendered properly when they are made above personal and factional resentments and feelings and suspicions. The raising of standards to which the wise and honest can rally never defeats progress. Problems of medical care must be solved on a basis which not only safeguards quality of medical care but also preserves the dignity and self-respect of the people who serve and are served. It cannot be anticipated that more than 200,000 persons will be insured the first year. That is only 4% of the population. Many areas will not be included. Any plan involving 4% of the population will be only an experiment. At least three years experience will be necessary to draw any conclusions of the practical working. The principles involved appear logical. By a trial and error method of procedure can experience be obtained. Should all of our expectations be fruitless, what has been lost? Practically nothing. Sufficient safeguards have been thrown around the plan to make it acceptable to the state insurance commissioner and to the public health. The group insured is a group which ordinarily could not be expected to pay more than 50% of the value of the services rendered under the present system or through a governmental agency. Experience with governmental agencies has proved unsatisfactory to both patient and physician.

Regarding a national health program we have rather definite assurance that at least one Bill and possibly two will be ready for introduction at the next session of Congress as substitutes for the Wagner Bill. The sub-committee of the Committee on Education and Labor may prepare such a Bill. The probability that professional groups will be consulted seems doubtful in view of past experiences. Health is the most precious possession of the individual and a health citizenry the most precious possession of a nation. No one denies that the Federal government has a definite and positive role to play in a health program. Interstate Commerce needs regulation. Germs and the economic effects of sickness have never recognized state boundary lines. A sound program should be developed. A program that will need years of sustained effort. That the professional groups

should take a positive rather than a negative stand in this matter seems highly desirable. I therefore recommend that the House of Delegates of the Michigan State Medical Society convey that opinion to our national organization with the recommendation to the national organization that it assume a positive attitude and that it take steps to correlate the principles to be embodied in a Health Bill and to sponsor its introduction into Congress.

Regarding the indictment of every physician in the United States, the Attorney-General of the United States issued a statement in Washington a short time ago to the effect that the Department of Justice has no intention of dropping the case against the American Medical Association under the indictment returned by a special grand jury several months ago. As far as I know this is the first time that the Attorney-General has come openly into this picture. He is reported as having stated that the Department of Justice will appeal to the Appellate Court and to the Supreme Court from the decision rendered by Justice Proctor. Should these measures fail, there is a possibility that an entirely new indictment will be sought. Now I will quote to you from the last issue of the *Journal of the American Medical Association*:

"According to announcements appearing first in the press, the United States Department of Justice has filed in the United States Supreme Court a petition for a review of the decision of Justice Proctor of the United States District Court for the District of Columbia, dismissing the indictment of the American Medical Association and three other medical organizations and certain individual physicians under the Sherman Antitrust Act. The Department seeks in this way to avoid a decision by the United States Circuit Court of Appeals for the District of Columbia, to which an appeal would ordinarily lie and to which the Department had already appealed. The Department seeks to justify this course on the ground that Justice Proctor's decision would ultimately reach the United States Supreme Court for review, no matter how the Circuit Court of Appeals might decide, and that the case would therefore be speeded and the public benefited by ignoring that court. This line of reasoning, if generally accepted, might relieve all United States Circuit Courts of Appeal of a substantial part of their present work. Moreover, if the Supreme Court refuses to entertain jurisdiction, the actual settlement of the case may be retarded. A decision in the present stage of this case by either the Supreme Court of the United States or by the United States Circuit Court of appeals must necessarily be limited to questions of law and will not determine in any degree the truth or falsity of the charges against the American Medical Association and others, formulated in the recently dismissed indictment."

This is read to give you a firm conviction in your mind that there is no intention on the part of certain forces in this Government to proceed and proceed by any means, which is legally unfair.

I recommend that this House of Delegates reaffirm its support of the national organization and that a communication be forwarded to Headquarters stating in no uncertain terms its fealty to the principles and precepts as established by the House of Delegates of the American Medical Association. Michigan Doctors of Medicine must stand squarely back of the national organization in its efforts to prevent the socializing and Hitlerizing of the sick people of America.

Those who have had charge of the organization of what might be called the commercial side of the state meeting deserve a great deal of credit. One hundred exhibitors have welcomed the opportunity to present their products to the profession. We feel that full support and coöperation should be given them. On the other hand, the encouragement of scientific exhibits has not received the support that I feel should be given. After all, we

are a scientific organization and encouragement should be given to all members especially interested in research and studies. I recommend that a standing committee of not more than five be appointed by the Executive Committee of the Council. Each member to serve five years except at the time of the appointment of the committee. One to be appointed for one year, one for two years, etc., in order that thereafter one may be appointed each year. This committee to be known as the committee on Scientific Exhibits and that encouragement be given to individuals as well as organization to present scientific exhibits.

The loss by death of many members of the society has saddened our hearts. Hands we loved to grasp are not in our group today. We have seen some cut down at the height of usefulness. We honor their memory and extend sympathy to their widows and orphans. But what about the loss to their families? Doctors rarely leave adequate provision for their dependents. You are so concerned with bringing security to everybody else that you have forgotten yourselves. The establishment of a fund in the organization, developed let us say, out of a contribution of one per cent out of every physician's gross income, one cent out of every dollar you take in, is recommended. This fund to be available to the widows and orphans of the deceased members of the society. Many a man has been taken and his widow left with a boy ten or fifteen years of age, or a daughter. There could be some provision to make a loan to this individual, to give a sense of security to that widow and child of yours who may be next. The details of the administration to be worked out by a committee for that purpose. This may sound Utopian and fantastic, but it could be developed into a security for needy widows and orphans that would be a practical way of honoring the members of our organization. The appointment of such a committee to study and report is recommended.

What the future holds for organized medicine depends upon its members; upon you and all other members. There is a constantly increasing interest in organizational activities by the members, but the strength of the organization is nowhere near what it should be. A great deal of the talent and power of the membership is not utilized. The day has passed in which a few leaders can assume the burden for organization responsibilities.

Social and business relationships are now, and bid fair in the future to be determined by group activities. It is an age of collective bargaining. Good public policy and duty to that public by ourselves requires a strong and stable organization.

Every politician and political organization recognizes the fertile field represented by interest in health. This field has been and will be seized upon without regard to future consequences. The guarantee of medical care is a powerful vote-getting measure. To adequately safeguard the public health, organized medicine must assume leadership and utilize its strength, not by individual effort, but as a group.

Thoughtfulness, caution and prudence without emotional flurry must guide all actions. The standards of quality of service alone are not adequately appreciated by the public. Leadership must be positive and constructive.

May calm cool judgment characterize your actions today as in the past and may the future justify your conclusions.

As the mantle of leadership falls from my shoulders, I again wish to express to each of you personally my appreciation for your kindness and

tolerance, your friendship and support. The difficulties and tribulations of the year will soon be forgotten and only the pleasant memories remain. (Applause)

THE SPEAKER: Thank you, Dr. Luce! Dr. Luce's Address will be referred to the Committee on Officers' Reports.

We will now have the Address of our President-elect. (Applause)

III. President-Elect's Address

Mr. President-elect Burton R. Corbus presented his address.

Mr. Speaker, Members of the House of Delegates, and Officers:

By virtue of the confidence you have placed in me, I am shortly to become your president. It is a great honor to be president of the Michigan State Medical Society. It is also a great responsibility. I shall make every effort to justify your confidence.

It is said that in the accomplishments of an organization one sees the shadow of its leaders, and I take the opportunity to note that the shadow which marks this year's accomplishments is deepened by the very unusual ability of President Luce. Industrious, keen, understanding, thoroughly familiar with the current medical problems of both state and nation, this Society has profited much by his leadership and is deeply appreciative of his sacrifice of time and effort.

Although there is ample opportunity for leadership in the presidential office for one who has that ability, leadership in this Society is by no means vested solely in that office. It is a wise provision of the constitution which places the responsibility for carrying out the policies determined here, upon the Council, and empowers it to act with full authority and power between sessions of this House. The chairman of the Council and his executive committee carry a heavy burden, especially when emergencies arise requiring both prompt and wise decision. Qualities of true leadership are not lacking in this group. It is good leadership because it represents in finality the conclusions of many minds, and it is safe leadership because it is so truly democratic.

After a vacation of three years from active work in organized medicine, I have been impressed with the activities of the Society and the great increase of responsibility which has been forced upon your executive committee and your officers. It means loss of time, worry and hard work. This has been a particularly hard year. Your representatives have had before them the challenge of certain groups close to the administration in Washington which would like to see established a form of socialized medicine in this country. There has been the threat of legislation detrimental to the profession in our state legislature, happily averted by the activities of your Legislative Committee.

Through hours of labor the Executive Committee, with the committee on the Distribution of Medical Care, struggled to work out a plan which they believed would successfully maintain those fundamental ideals which it has ever been our ambition to meet.

This House of Delegates will have presented to it the results of these many hours spent in preparation of a plan for the professional care of the low income group, which its authors believe will

maintain the fine qualities of American Medicine, and at the same time, will take care of that group which, when hit by catastrophic disease, is economically overwhelmed. If this plan meets with your approval you accept the challenge of those who say that socialized medicine is the only way. We have produced, in our way, an American plan, fair to the doctor, which will insure infinitely better professional care to the patient than can be accomplished through any form of practice under bureaucratic control. Our next step will be to sell the plan to doctor and laity. It is our answer to those who would put the practice of medicine on a mass production basis—our answer to the proposed socialization of medicine.

We shall be undertaking a real task if we, with our associates, proceed with this plan for voluntary group medical care. Once established, it will work to your benefit as well as to the benefit of the man of low income. In the beginning it must be presented to the profession and to the laity in such terms as will insure their enthusiastic approval, and it will succeed just in proportion to the willingness of the doctor to cooperate, and to cooperate honestly, in the carrying out of the work.

Concerned as we are with these economic problems, concerned as we may be forced to be concerned with service to the injured in a world war, we must never lose sight of the fact that we are essentially a scientific body, and that, after all, the highest ambition of our Society is to help develop a better and better professional service to the public. But I am not referring now to the distribution of medical care. I am referring to the grade of service which is to be obtained only by that improvement in quality which comes through an improvement in the ability of the physician to serve. Emphasis must continue to be placed on our postgraduate courses.

We are proud of the fact that Michigan is recognized throughout the medical nation as one of the leading, if not the leading state in its contribution to a liberal, well distributed postgraduate medical education. We are pioneers in the effort to cover the entire membership of the Society by bringing the opportunity to the doctor in his own territory. Michigan's plan for continuity of medical education, with its system of credits to the participants, a plan for which Dr. J. D. Bruce is largely responsible, a plan which includes a fine, helpful affiliation with the Postgraduate Department of the University of Michigan and Wayne University, has met with the enthusiastic approval of the profession, and is most favorably commented upon by all who are interested in that phase of medical education.

Now it seems to me that we might also concern ourselves with undergraduate education. Our happy association with the two medical schools in the furtherance of Post-Graduate Education, suggests that it would be of mutual advantage if there might be more cooperation between this Society as representing the practicing physician, and those responsible for the development of the curriculum of our medical schools. We are aware that pressure groups are constantly active in an effort to influence the school authorities to emphasize the particular phase of medical education in which the special group is interested. It is understandable that such societies as the Traumatic Surgeons, the Society for the Prevention of Cancer, the Society for the Study of Heart Diseases, and allied groups, should show this special interest. On the other hand the physician in general practice notes that the young graduate finely prepared basically, is, as a rule, illy prepared

to care for those quite ordinary, every day affairs which make up the major part of a doctor's practice.

Our state law requires a year's internship before registration, but the training of an intern in many a hospital is a most haphazard sort of affair, too often dependent upon the special interest of one or two members of the staff. There needs to be devised a systematized plan for intern instruction and a centralization of responsibility. With this there should be some method devised for checking the results. These are matters of importance alike to the physician and the medical school. What preparation is essential for the making of a good doctor? I suggest that the practicing physician may have some very helpful ideas. With no thought of criticizing either the curricula or the teaching in our schools, I believe that a discussion of these and allied problems before a committee from this Society and a committee from the two medical schools, would result in a unity of thought and action which could well be a real contribution to medical education.

We have a very definite obligation to bring to the laity information in regard to the maintenance of health, the prevention of disease, and such scientific material and direction as will help them to get well when they are afflicted. This educational program should not be the least important of our objectives, not only because of its intrinsic value, but because in this way we can best reestablish that faith in the profession which has, to some degree, been undermined by unfair criticism. We recognize that our scientific committees, the Cancer Committee, the Maternal Health Committee, the Syphilis Control Committee, the Tuberculosis Control Committee, and those with similar objectives, are doing a valiant work in bringing education to the laity and to the doctor too.

The Council will present to you a plan for the centralization of the activities of these committees. Under this plan the personnel of the Preventive Medicine Committee will consist of the chairmen of these committees. Here matters of policy may be worked out. Here plans may be developed for the mobilization of our forces in the fight against disease. Here the many scientific activities of the Society will be concentrated. The Council believes that this change in our by-laws will make possible the operation of this plan, will be advantageous, and I trust that it will be acceptable to you.

Dedicated to a profession in which the humanitarian aspect is dominant, the doctor's professional life, his days and frequently his nights, are spent in relieving the pain of the suffering, in activities directed to the prevention of disease, in a continuing effort to improve the quality of medical service. In association with other groups and the state, he would help to make living conditions easier for the average man, to bring about better living conditions, better hygiene, better health.

As I write this there is a fearful European war in progress, a war which threatens the civilizations of the world. Inevitably the thought comes to mind that the struggle by the profession for the advancement of medical science, this effort which has resulted in a lengthened life expectancy, the elimination of the most serious epidemic diseases, and has made a world at Peace a better world in which to live, has been in behalf of an unappreciative world. We will not admit that it is wasted effort, but one can not avoid the feeling of futility which possesses one for the moment.

In any event we are today faced with a situation which in its very least effect is likely to dis-

arrange our plans for the immediate future. Those of us who served over seas in an earlier World war, look with a dread approaching horror at this world war number two. Knowing at first hand how the U. S. Army Medical Corps was handicapped by inefficient preparation, we will want to do our part in preventing a repetition of this, if so it be that we shall again become involved. God grant that this government avoids war, but whether we do or not, I anticipate calls for help, a call for doctors and nurses for Red Cross duty. I have no doubt that there will be many who will respond, and I have no doubt that organized medicine will be called upon to make plans for possible eventualities. So far as we may, the Michigan State Medical Society stands ready to respond to any and all requests having a humanitarian objective.

Mindful that this next year is likely to be a difficult one, I have full confidence that I have your support, and you may have full confidence that the exigencies, if and when they arise, will be satisfactorily met by your officers and the Council. (Applause)

THE SPEAKER: The President-elect's Address will be referred to the Committee on Officers' Reports.

We are going to defer the Annual Report of the Council until later in the forenoon.

IV. Report of Delegates to A.M.A.

(See Page 971)

V. Annual Report of The Council

(See Page 974)

VI. Reports of Standing Committees

VI-1. LEGISLATIVE COMMITTEE

We will now go to Reports of Standing Committees. Dr. Miller, will you report for the Legislative Committee?

DR. HAROLD A. MILLER: You have the printed report in detail and there are certain portions of that report that I wish to emphasize. There has been brought out in the meeting this morning the Wagner Bill or some type of a health bill that is going to be proposed in this session of Congress. You know that another call has been issued for a meeting of Congress on September 21st, to consider emergency legislation.

Our recommendation is that you continue your efforts, as individual physicians and citizens, to contact your Congressmen, your Representatives in Washington, so that they shall not include in their agenda this question of health insurance.

There are so many parts of this Report that I would like to emphasize but time does not permit. I want you all to know the wonderful work that Bill Burns has been doing in helping us in this legislative year. He has not only been occupied with legislative problems but he has been busy with all other problems of the Society, and I personally want to thank him for his work during the last year.

I want to read just the next to the last paragraph of the prepared Report, and I want to emphasize that:

"We have spared neither time nor effort in our legislative work, and we believe that we have gained further respect for the Michigan State Medical Society from legislators, elective officers of the State, the press and the general public."

We do feel that we have friends in our State legislative body, and it is due to your help that that change has been brought about. Personally I want to thank oh, so many individuals, our Councils and its Executive Committee, our men throughout the State, our key men, the Secretary—everyone seemingly has been very, very helpful during the last year.

I also want to bring out just one other little disagreeable circumstance with the past legislation. I am reporting not as a Committee, but this is a personal feeling. We are still having and feeling the effects of the cults. Do not for one moment in your minds minimize their activity. Their activity has been the strongest of any organization that I have had any connection with. They will at any time put into the hands of the legislators telegrams by the bushel basketful. And, gentlemen, that means something to your legislators, to receive some type of communication from their home people. That is a personal report only from your Chairman and is not the Report of the Committee.

Again, I want to thank you all for all your aid during the last year. (Applause)

THE SPEAKER: Thank you, Dr. Miller! The Report of the Legislative Committee will be referred to the Reference Committee.

X. New Business

X-1. SCROLL PRESENTED TO HAROLD A. MILLER, M.D.

You have just heard the Chairman of the Legislative Committee render his verbal report, supplementary to the one printed in the Handbook. This last year has been a legislative year, and it has been a rather hard one. The medical profession came through this year in good fashion, and we wish to thank Dr. Miller for this because it was largely through his direction and the work of his Committee and the key men in our organization that these things were accomplished.

I might mention the two laws which were enacted to enable the medical profession and the Hospital Association to put in group medical care and group hospital care; also the syphilis control laws and the medical section of the welfare law. These were all difficult problems for anybody to handle and they were handled very well by our Committee. Dr. Miller was the Chairman of it. He was on the job, it seemed to me, night and day. At this time I want to present to Dr. Miller a scroll expressing the appreciation of the Michigan State Medical Society for his services. (Applause)

The Speaker presented the scroll to Dr. Miller.

DR. MILLER: Mr. Speaker and Delegates: This means a whole lot to me. I appreciate the remembrance, which says: "To Harold Abiud Miller, M.D., for his services to the Michigan Medical Profession and the Michigan State Medical Society." It is signed by President Henry A. Luce and Secretary L. Fernald Foster.

Thank you very much for this sign of appreciation! (Applause)

THE SPEAKER: The pleasure is all ours, Dr. Miller, I would have read it myself if I could have pronounced that middle name.

DR. MILLER: That shows you don't read your Bible.

THE SPEAKER: Even if I did, I couldn't pronounce it.

VI-2. REPRESENTATIVES TO JOINT COMMITTEE ON HEALTH EDUCATION

Dr. Corbus, would you care to elaborate a little on the printed Report of the Joint Committee?

PRESIDENT-ELECT CORBUS: Mr. Speaker, it is complete as found in the Handbook.

THE SPEAKER: The Report will be referred to a Reference Committee—to Dr. Arnold's Committee.

Dr. Pino, will you please come forward and give us the verbal Report of the Committee on Distribution of Medical Care.

VI-3. COMMITTEE ON DISTRIBUTION OF MEDICAL CARE

DR. RALPH H. PINO: You will note that we have reported in the Handbook matters only pertaining to the pre-payment insurance affairs—not that we have not had in mind many other important things having to do with the economics of medicine and the distribution of medical care in Michigan. This was quite enough to handle but there were other problems that we have had something to do about. However, in this year of legislative procedure, it has been necessary that the Legislative Committee go ahead under the direction of The Council and the Executive Committee of the Council with many things, and there was no time for our Committee to take up and give an opinion on these matters.

But I want to invite to your attention some considerations that have a background in the interests of medical economics during the last several years and which affect vitally the attitude of the medical profession and the outcome of the affairs of the medical profession in the distribution of medical care. These have to do with the local administration of medical care down to the last townships of the State.

Dr. Pino elaborated on this subject.

I want to come back to this report. The amount of material that it was necessary to provide for the Executive Committee we felt some time last May had been obtained. We were unable, as a Committee, to go into the details in any type of authoritative or studious way as men like Mr. J. D. Laux have been able to do, and so we said to the Executive Committee that it was time for us to relinquish this to someone who could guide us. It was turned over and you have heard the report of what has been developed by the Executive Committee and the Council and that has been brought to you.

Back of all of the feeling in matters of medical economics, as interested as we are and as much as we want to see every individual have as good medical care as he can, I am sure there has been that thought, that in America we do not want to see our democratic form of Government interfered with. I want to say that I know of no better example of the working of democracy from the medical standpoint or from any other standpoint than that which has been worked out in this past year through The Council and the Executive Committee of the Michigan State Medical Society. They said months ago—in fact, two or three years ago when we would appear before them as a Committee and

bring up the subject of group medical care and various things, they would say, "What have you definitely to offer?" That would be stated time after time, and they would say, "Bring in the facts," and we would gradually bring in the facts. They would hold us responsible, and on a firm, actuarial basis they have built this plan up to what we think is nearly perfect, through the men that the profession in Michigan have elected from year to year, passing the responsibility then to The Council and to the Executive Committee, and there has been set up what we believe to be a very excellent American way and it is a fine example of the democratic form of Government. And we thank you as a Committee. (Applause)

THE SPEAKER: Thank you, Dr. Pino!

Dr. Pino's Report will be referred to the Reference Committee on Standing Committees' Reports.

Dr. Gruber, will you discuss the Report of the Delegates to the A.M.A.?

IV. Report of Delegates to A.M.A.

DR. GRUBER: You will find on page 42 and the ensuing pages the Report of the proceedings of the House of Delegates of the American Medical Association. I should like to invite your attention to an excerpt from the report of Dr. Shoulders, the Speaker of the House of Delegates:

"The House is in session for a few hours each day for not more than three days as a rule. A relatively small amount of time is available for deliberation and debate. No ready reference library is at hand. Almost every session of the House has been called on to consider and act on issues of vital importance, not only to the medical profession but to the people of this country as a whole.

Notwithstanding all these conditions, one finds in the Proceedings of the House a golden thread of consistency which runs straight through all the actions taken on all issues presented, which in any way touch the fundamental principles to which you have given allegiance. It would be natural, under the circumstances, for errors to occur and for actions taken in one session to be in conflict with those taken in another session one or many years before. Yet, this has not occurred."

I read that because in view of the action of the House of Delegates regarding the Wagner Bill, regarding other issues that are paramount at present, the statements are very true.

I invite your attention to the paragraph on the Wagner Bill to which the answer was "No." I would recommend you read in the *Journal of the American Medical Association* the Report of the Reference Committee on the Wagner Bill and the reasons why they said, "No."

Another item that was brought to the attention of the House of Delegates was the matter of long distance prescribing. It was somewhat of a surprise to me that a component part of the medical profession would present a resolution that would make it ethical and legal to do long distance prescribing, particularly in the matter of radium. It has been a principle of the American Medical Association during its entire existence that a doctor should not prescribe by mail or by telephone without having seen the patient and really knowing what was wrong with the patient. It would seem to me if this principle were broken down, we would, along with the Governmental agencies, probably run a sort of mail order business where people could write in and have their troubles taken care of. I was very pleased at the House of Delegates' stand in the matter of prescribing radium and getting a prescription from the company that manufactures radium as to how to use it and the long-distance prescribing of its use.

In our report, a principle is enunciated that should govern most of the affairs of medicine. This has particular reference to medical relief through Farm Security Administration: "Many abuses have arisen, and it appeared to the House of Delegates that county societies may well be guided by their state medical society in all contracts that they may be called upon to make for any type of medical care, either relief or low-income insurance groups."

I think that probably the meeting was as important a meeting of the American Medical Association as has been had in a great many years because of the various economic considerations that were brought before it. (Applause)

THE SPEAKER: Thank you, Dr. Gruber!

Dr. Gruber's Report will be referred to the Committee on Council Reports.

VI-4. CANCER COMMITTEE

Next we come to the Report of the Cancer Committee, which is referred to the Committee on Constitution and By-Laws.

VI-5. PREVENTIVE MEDICINE COMMITTEE

DR. L. O. GEIB. The Preventive Medicine Committee during the past year has held four meetings. According to the Handbook there have been three meetings, but an additional meeting has been held on which I have a supplemental report to make.

The Preventive Medicine Committee has a program, and in that program it wishes to have more emphasis placed upon the teaching of preventive medicine during the State meeting. Additional space has been given these last several years, and, as you all know, next Thursday is in the main given over to preventive medicine.

We also ask that in the regional conferences more time and effort be given to the presentation of topics on preventive medicine. We also feel that in the county societies more time should be given to this subject.

We again wish to emphasize the need for more county health units. If effective methods in controlling health are to be had, this will be most easily obtained through the county health unit where we have one individual with whom to deal, one unit with which to deal, rather than a great many as we do now in some counties.

Another matter which I feel important which was taken up in the Preventive Medicine Committee meetings is with regard to football injuries. This time of the year our high school students are playing football and this Committee felt the supervision was insufficient. Therefore it is recommended that more definite blanks for physical examinations be adopted, that an x-ray of the chest of all athletes be a routine measure (I feel that is rather important because the percentage of tuberculosis in high school students and especially among athletes is rather high), and also that a doctor of medicine or senior medical student be present at all games. There is also used in some states a health and hospital insurance for athletes. It is believed that if athletes were provided with some kind of insurance, the companies would demand adequate medical examinations, and we believe there should be more medical examinations of these students.

A new project was initiated this year, and that is to find typhoid carriers. There are 3,000 typhoid carriers in the state, and with the State Health Department the Preventive Medicine Committee has approved a letter requesting support from County Medical Societies, to be followed by an agreement on the part of individual physicians to forward to

the State Department of Health specimens and other relevant data concerning any suspected carrier.

It has been the intent of this Committee to make contacts with as many interested groups as possible, such as the Tuberculosis Association, the State Health Department, the University of Michigan, the Foundations, and all groups interested in health. We have invited them to our meetings and we have had the benefit of their views. We know that they have been helpful to us and we hope that we have been helpful to them.

The Supplemental Report, which is not in the Handbook, is as follows:

A meeting of the Preventive Medicine Committee was held on Wednesday, Aug. 2, 1939, at the Statler Hotel, Detroit, Michigan. The following recommendations were made to the Council.

1. *Public Relations Counsel.* The advisability of making adequate provisions for a public relations counsel, publicity or press man as assistant to Executive Secretary Burns.

We felt we should have someone who could take the message of preventive medicine, of health, to the newspapers, and give us sufficient newspaper space so that the public at all times should be made aware of the advances made in medicine.

2. *Poliomyelitis Consultation Service.* It was proposed that a "Commission on Infantile Paralysis" be formed to include the Michigan State Medical Society, the Kellogg Fund, the Childrens' Fund of Michigan, the State Health Department and other interested groups and that the Michigan State Medical Society contribute the sum of \$1,000.

3. *Postgraduate Instruction in Poliomyelitis.*

- (a) That through the chairman of the Postgraduate Medical Education Committee of the M.S.M.S. Dr. J. D. Bruce, a demonstration clinic be arranged immediately and that a team be sent out to the affected areas.

- (b) That the A.M.A. brochure entitled "Poliomyelitis" be mailed to all members of the Michigan State Medical Society outside Wayne County (Wayne County will be supplied by the Detroit Board of Health) with a letter containing details concerning diagnostic services as outlined by the Preventive Medicine Committee.

THE SPEAKER: Thank you, Dr. Geib!

Dr. Geib's Report will be referred to the Committee on Resolutions.

There are two subcommittees under the Preventive Medicine Committee. One is the Syphilis Control Committee. Dr. Shaffer, do you care to add anything to what has been printed?

Dr. Loren W. Shaffer, of Wayne, presented his prepared Supplementary Report:

An additional joint meeting with the Michigan Junior Chamber of Commerce was held on September 14, 1939, at the Hotel Olds, Lansing, Michigan. I desire to bring two resolutions to your attention as passed at this meeting:

Resolution I: Dr. Holmes moved that the Chairman of the Committee on Syphilis Control prepare a supplementary report of this Committee to be read on the floor of the House of Delegates, requesting from the Delegates the coöperation of the various county societies with the Junior Chamber of Commerce in their respective localities in this anti-syphilitic program. Seconded by Dr. Roehm. Carried unanimously.

Resolution II: Dr. Breaky moved that a letter be sent through the office of the Executive Secretary of the Michigan State Medical Society to all component county society units urging the appointment in each individual society of a committee or representative

for syphilis and gonorrhea control in order that events of the State Committee may be closely integrated and accomplishment may be a means of achievement.

I would also like to present the following material to you, as Delegates of the Michigan State Medical Society, emphasizing the urgency of interest and support in our syphilis control program.

The need to reduce the serious inroads by syphilis on the health of our citizens is generally recognized and heartily approved by our medical profession. It is likewise recognized that its incidence could be very rapidly reduced by effective control measures now available. The only question subject to argument is the method to be employed. The medical profession objects to the ever-increasing pressure to make the management of genito-infectious diseases the function of the state and set up facilities for its management entirely out of their hands at state expense. We object to the pauperizing of our citizens and the use of these diseases as another entering wedge to force the socialization of medical care. We believe that the practicing physician is an indispensable cog in such a control program, and that his interest should be encouraged. It is our aim to do this in Michigan. We have a wonderful opportunity to show the nation that such a program can be successful and have a greater permanency than the free clinic plan, so widely accepted in other states. To be successful, however, we must have the enthusiastic coöperation of the medical profession. We must appreciate the seriousness of the problem, and overcome the apathy shown by the majority of our profession. If we insist on pursuing a stand-pat policy, the socialization of genito-infectious diseases will most certainly be forced upon us. The solution lies in our own hands, if we will meet it.

I would personally like to request, at this point, that provisions be included to cover the cost of treatment for venereal diseases in our proposed health insurance program. Late syphilis might be excluded temporarily. Acute cases of both syphilis and gonorrhea are an urgent public health as well as medical problem. The minimum amount of treatment recognized as controlling early syphilis (20 arsenical—20 heavy metal) costing \$80 under schedule, and gonorrhea should be approved. If it is not, another step is taken to designate venereal diseases as purely a problem of the state and take such cases out of the hands of the private practitioner. An insurance commissioner with the lay attitude may think these diseases are a punishment for sin, but we cannot if they are to remain a problem of private medicine.

Our work has just begun. The most difficult part of our program is still ahead. The details of our "find and treat" program must still be brought to the attention and sold to our medical profession. We plan to continue our efforts at further, even more intensive, educational programs to both the laity and the medical profession. We have requested that each of our larger county medical societies have a syphilis control committee and that the smaller units appoint a representative. The chairman or representative of such societies should be invited to meet with our state committee to review the general syphilis control program at the time of our Annual Meeting.

Our professional education talks should stress the importance of prompt and proven laboratory diagnosis of early syphilis. They should urge the necessity of source and contact findings of all such early cases and the necessity of holding them to, at least, the minimum modern standards of treatment.

More aid is urgently needed by both our local and State Health Departments in assisting with source

and contact finding and returning of lapsed early cases to further treatment.

It is further requested that a full-time field secretary be appointed to our committee to develop and coöordinate our county programs and educational efforts. It is requested that this appointee represent the Michigan State Medical Society in such efforts and salary be paid jointly by our Society and the Michigan State Health Department, similar to like positions with the Maternal Welfare and Cancer Programs.

DR. SHAFFER: We have had a very active year. We have still many problems to be solved. I also wish to express my appreciation to the members of our Committee, who have worked, as I am sure you can appreciate from the report of the numerous meetings we have had, very hard, very religiously. They have given up their time without question in regard to our activities, particularly the legislation with regard to syphilis control that went into effect this last year. I also appreciate the interest that is being shown by the general medical profession. I only ask for increased interest. Thank you!

THE SPEAKER: Thank you, Dr. Shaffer!

Dr. Shaffer's report is referred to the Committee on Resolutions, along with the Report of the Advisory Committee on Tuberculosis Control.

VI-6. POSTGRADUATE MEDICAL EDUCATION COMMITTEE

DR. H. H. CUMMINGS: Chairman J. D. Bruce will be here later in the week and he asked me to call your attention to just a few changes in the Annual Report of the Advisory Committee on Postgraduate Education.

When Dr. Bruce started this work nearly thirteen years ago, five per cent of the doctors of the State were taking some postgraduate work during their professional career. Within twelve years in Michigan over fifty per cent of our doctors are taking postgraduate educational work every year, and over sixty-five per cent of the doctors belonging to the Michigan State Medical Society are taking some postgraduate work every year.

The Speaker of the postgraduate program at the Cleveland Ob. and Gyn. Congress said that in the United States there are two men who know something about postgraduate medical education: one is Dr. O'Brien of St. Paul, and the other is Dr. James D. Bruce. So I think here in Michigan we have been most fortunate in having a man who has developed a plan of this kind.

A letter has come from Port Huron and Mt. Clemens asking for a new extramural center. I will ask you to keep in mind this fact, that there must be enough interest in that territory and enough doctors anxious to get this work to make it worth while to spend the money and devote the effort in that territory. It will cost between \$300 and \$400 to set up this center in this region. If enough of the doctors are interested, Dr. Bruce may recommend it.

Some of you know that Wayne County is planning or has planned a very extensive postgraduate medical program for its territory. Dr. Bruce is delighted with this movement and he hopes to see it spread to other centers in the State where there are men available as teachers, clinical material, hospitals, a large number of general practitioners who want the work. Dr. Bruce does believe, however, that centralized direction should lie in one place. The actual operation and carrying on of the educational work might very well be spread to a number of centers, such as Grand Rapids, Detroit, Bay City, Saginaw, Lansing, Jackson and perhaps some of the other places.

It is interesting that this whole thing is growing

rapidly and the members of the Committee want to thank the Officers of the Society and most of all the doctors who have shown an interest in this matter of preparing themselves to give their patients better service. (Applause)

THE SPEAKER: Dr. Cummings' Report will be referred to the Committee on Constitution and By-laws.

Next we will have the Report of the Public Relations Committee.

VI-7. PUBLIC RELATIONS COMMITTEE

DR. L. FERNALD FOSTER: The Report of the Public Relations Committee is practically complete in the Handbook. It is shorter than has been the case in previous years, due to the fact that in the past year the major activity of a public relations character has been that of legislation, and obviously its work has been expedited by having it done directly by the Legislative Committee and the executive office. The Committee, however, expects that with the institution of the Medical Service Plan the public relations activity will be greatly increased.

THE SPEAKER: Dr. Foster's report will be referred to the Reference Committee.

Inasmuch as Dr. Porter could not be here to give the Report on the Ethics Committee, Dr. Breakey will give this report.

VI-8. ETHICS COMMITTEE

DR. ROBERT S. BREAKEY: The Report of the Ethics Committee says there were no causes for a meeting. Subsequent to the submission of these reports for publication there were two rather interesting matters that were called to the attention of the Ethics Committee, and each member was requested to submit an opinion to the Chairman in writing. The substance of these opinions in the two particular cases was then drawn as a Committee opinion of the whole and submitted to the Executive Committee of the Council for guidance or action. We did not feel that it was necessary to bring these cases to the House of Delegates in detail. Certainly the material is available to any of you through the Executive Committee of the Council. We merely want you to know that we have not been inactive but nothing has particularly come to our attention until the last two months. The matters have been taken under advisement and are well handled through the Council.

THE SPEAKER: The Report of the Ethics Committee will be referred to the Committee on Constitution and By-Laws.

I want to make an announcement: that anyone who wishes to appear before these Reference Committees and discuss any of these reports is welcome.

That covers all of our morning schedule of work except the Council Report, which contains the Michigan Medical Service Plan, and we will take that up next. But before we do that, I think it would be just as well to have a short recess.

Recess

THE SPEAKER: Dr. McKean will be the Chairman of the Committee on Resolutions and Dr. Woodworth will be added to that Committee.

I will now call on Dr. Urmston, the Chairman of the Council, to give the Supplemental Council Report.

V. Annual Report of The Council

DR. P. R. URMSTON: I am submitting to you the Supplemental Report of the Council. The main report is printed in the Handbook.

Mr. Speaker and Members of the House of Delegates: The Annual Report of The Council for the year 1938-39 appears in the Delegates' Handbook, beginning at page 31. As this report was written in July (in order that it might appear in your Handbook), we respectfully submit additional information on matters which have been considered by The Council and its Executive Committee during the past two months, and also a few recommendations.

Our membership—the greatest in the history of the Michigan State Medical Society—stands today at 4,327. While The Council is gratified at the great increase in its active membership during the past three years, it recognizes that an important segment of our profession is being overlooked so far as membership in the State Medical Society is concerned. We refer to the internes and residents in our hospitals. A special junior membership might well be provided for these physicians; a small fee merely to cover the annual costs of mailing THE JOURNAL and other M.S.M.S. releases could be charged. Such a membership would stimulate our younger physicians to maintain their association with their county and state medical societies by transferring to active membership upon their entrance into practice.

Michigan Medical Service. Brief mention is made on page 39 of the Handbook concerning the development of a plan of voluntary group medical care. As Chairman of The Council, it was my duty to see that all members contributed their best efforts toward the speedy completion of the formidable task of preparing the details of the medical service plan in accordance with the instructions of the House of Delegates. As Dr. Pino said, his Committee worked as far as it could and then turned it over to the Executive Committee for further development. At that time we agreed with him that his Committee had gone as far as it could and then the Executive Committee went as far as it could without a man who was versed in all of the subjects of economics and sociology to formulate the details of the plan such as we presented to you yesterday. At this time I want to thank Dr. Pino and his committee. I wish to take this opportunity to thank all members of The Council, and especially the Executive Committee of The Council, for their devotion to the tasks assigned. Without their loyalty and fine spirit of cooperation, plus their costly sacrifice of hours of time attending weekly meetings, especially during the hot summer months, we could not have made the rapid progress which now permits The Council to present in full a carefully developed medical service plan entitled "Michigan Medical Service."

You will recall that on January 8, 1939, you authorized The Council to levy an assessment of \$5.00 on every member of the Michigan State Medical Society for the year 1939 (page 161 of February, 1939 JOURNAL). The Council has appreciated your confidence, and is happy to state that matters were so well arranged by its Finance Committee that no direct assessment was required.

During the past week, the details of our plan were presented to the Delegates by the Councilors of their Districts. At this time, Mr. Speaker, I wish to inquire if you desire us again to present to the Delegates the entire report and detail of Michigan Medical Service?

The Council is grateful for the extraordinary cooperation it has received from all members of the Society during the past year, one of the most fateful years in our history. In every one of our activities, which as you know have increased and multiplied, the aim of your Council has been not only to protect but to promote the interests of all of its members, realizing that the status of Medicine and Health in

this State will improve in direct proportion to the satisfactory position of those who serve the public in medical matters.

Recommendations:

1. That the House of Delegates urge every county medical society to hold a symposium on the State Society's group medical care plan, and authorize the immediate and vigorous inauguration of the program as approved by the M.S.M.S. House of Delegates, to the end that "Michigan Medical Service" shall fulfill its humanitarian mission.

2. That the House of Delegates urge every county medical society to take immediate action for the creation of a county or district social welfare department, with a Doctor of Medicine in charge, and an advisory committee composed of one M.D., one D.D.S., and one pharmacist, as per Section 55-k of Act No. 280 of 1939, the new Welfare Reorganization Law. We had hoped this morning to have present members of the Committee, but Dr. Christian said their sessions would last today and we hoped to get this report tomorrow. At some later meeting perhaps Dr. Christian can elaborate on the reorganization of the welfare law.

3. That the House of Delegates give favorable consideration to the creation of a junior membership in the State Society to permit internes and residents to become associated with their county and state medical societies as soon as possible.

4. That the House of Delegates favorably consider the recommendations re changes in the By-laws covering our medico-legal work, to be made by the Special Committee on Medico-Legal Activities (Drs. Holmes, Andrews, Moore).

5. That the House of Delegates urge county medical societies and individual physicians to maintain contacts with U. S. Senators and Congressmen to defeat (a) the regimentation of our patients; (b) the socialization of the practice of medicine, and (c) the expenditure of huge sums of Federal money for impractical schemes associated with health service.

6. That the House of Delegates reaffirm its authorization to The Council to levy a capital assessment or assessments, not to exceed a total of five dollars, as seems justified in their considered opinion.

7. That the By-laws be changed in Chapter 6, Sections 6 and 7, so that the Preventive Medicine Committee be composed of the Chairmen of the Committees on Tuberculosis, Syphilis Control, Heart, Occupational Diseases, Cancer, etc., the State Health Commissioner, the Chairman of the Joint Committee on Health Education, and the Chairman of the Postgraduate Medical Education Committee, with the Chairman of the Preventive Medicine Committee being appointed by the President; and that all committees dealing with Preventive Medicine be considered as advisory committees to the Preventive Medicine Committee, which alone of the above-mentioned committees shall remain a standing committee of the State Society. This setup will make for more efficiency and economy.

I am going to call on Dr. Foster to elaborate on that a little bit. Dr. Corbus has mentioned it in his report.

DR. FOSTER: The setup as proposed in an amendment to the By-laws, which will be presented later, is in line with a streamlining program in regard to committees with a view to greater efficiency and a correlation of the activities of those committees whose work is concerned with health. As you know, our State setup is divided into two groups of committees: those which have to do with the socioeconomic phases of our activity, and those which have to do with its scientific side. In our present

setup there is only one Standing Committee in health, and that is the Cancer Committee. Still we have a Syphilis Control Committee, a Mental Hygiene Committee and a Maternal Health Committee, but none of those is now designated as a Standing Committee. So as not to make the organization setup of the State Society unwieldy, it is proposed that the Chairman of the Preventive Medicine Committee be appointed by the President and that this Committee be composed of the Chairmen of all of these health committees which shall be listed in the By-laws, thereby establishing their permanence, which, I believe, is important to each Committee. They are rather jealous of their work and want a certain degree of permanence. So in the resolution it says, "The following Committee and such other Committees as from time to time may be appointed to study and analyze and develop projects along the lines of certain illnesses." Then in order to further develop the streamlining, there has been included the Chairmen of the Postgraduate Medical Education Committee, of the Joint Committee on Health Education, of the Radio Committee which has to do with the publicity of these activities, and the State Health Commissioner.

It is simply a question of simplifying the organization, making for greater efficiency and coördination, maintaining the permanence of these Committees as Advisory to our Standing Committee on Preventive Medicine. In this way they will be listed and their permanence established. It is in line with a general streamlining tendency adopted by other medical societies in the country that are up and coming.

DR. URMSTON:

8. That no more Sections be created in the Society, but that the work of special groups be done by the more efficient and less cumbersome method of creating additional committees of the M.S.M.S. All allied medical groups should be encouraged to hold their annual sessions at the same place and coincident with the annual meeting of the M.S.M.S., either directly before or after the scientific program of the M.S.M.S. This closer association will result in better coördination of medical work and service in all its branches.

I am again going to call on Dr. Foster to explain why no more sections be created in the Society.

DR. FOSTER: Since the adoption of the policy three years ago of having general sessions, it being considered that the State Medical Meeting is essentially designed for the benefit of the general practitioner who makes up the great majority of our membership, and in view of the fact that the specialists, if they want postgraduate training, don't come to the State Medical Society primarily for that (they go to their special national organizations), and since the sections have been simply concerned with the development of the scientific program each year—and I might incidentally say there are now on file some five requests this year for additional sections which will make unwieldy and burdensome the organizational setup of the State Society—it was felt that the need for the sections is becoming less rather than greater. It is also very evident from conversation with these various sectional groups that what they really want is some definite representation in the organizational setup. The Council has felt that that can be had equally well by the establishment of Committees rather than an official setup by the Constitution of more and more sections.

MICHIGAN MEDICAL SERVICE

DR. URMSTON: Now, we shall revert to Michigan Medical Service. I have one particular report I would like to read before I ask the Speaker to

throw the meeting open for discussion, and that is in reference to the ten principles laid down by the A.M.A. at the meeting in Cleveland when we presented our plan a number of years ago.

Particular attention is called to the fact that the suggested medical service plan fulfills the requirement of the ten principles recognized as fundamental for a sound medical service plan by the American Medical Association:

First: All features of the medical service plan will be under the control of the medical profession.

Second: No third party will come between the patient and his physician. The physician-patient relationship will remain the responsibility of the individual physician and patient.

Third: Subscribers will have free choice of a legally qualified doctor of medicine.

Fourth: The method of giving service will retain a permanent, confidential, "Family physician" relationship between the physician and the patient.

Fifth: Medical service is considered separately from hospital service.

Sixth: The cost of the payments for medical services will be borne by the patient in accordance with his income status.

Seventh: There is no connection between the medical service and benefits for the patient.

Eighth: All legally qualified doctors of medicine who wish to give services under the conditions established will be included.

Ninth: The group to be served will be below "comfort level" standard of income.

Tenth: There will be no restrictions on treatment or prescribing not formulated and enforced by the organized medical profession.

Now, Mr. Speaker, do you wish the Medical Service plan to be presented to you again as we presented it to the informal meeting last night, or do you wish to ask questions and have them answered?

THE SPEAKER: How many Delegates here today were not here last evening? Will you please stand? About ten Delegates arose.

THE SPEAKER: This Michigan Medical Service was presented last evening by five or six Councilors in an informal way. They didn't read it verbatim. We have two or three courses left open to us. We can present it and read it verbatim, which will take about one hour and forty-five minutes; or we can have these six Councilors re-enact what they did last evening, which will probably take just as long; or, inasmuch as most all of you have had copies of it, we can let you get up and discuss it and ask questions about it, whichever you choose to do. Has anybody got any ideas on that?

DR. J. M. ROBB: It would seem that after last night's performance for a number of hours that we should have fairly clearly established in our minds the way we feel about this, which might be aided by questioning now. Personally I wouldn't want a rehearsal of the whole program as outlined last night, and therefore I would be in favor of the last proposal, and that is simply the matter of questioning the points that have come into your minds relative to this program.

THE SPEAKER: Has anybody else any ideas on this subject?

DR. E. D. SPALDING: In order that this may not be a heterogeneous discussion, I think it would be well if the subject be discussed in sections so that we can keep our mind on one suggestion and not go all over the whole thing. I think that would be advisable.

THE SPEAKER: You mean each section should be discussed now?

DR. SPALDING: Take the sections up separately rather than open the whole matter for discussion.

THE SPEAKER: I think that is a good idea. Take one section at a time and then whatever discussion there may be on that from the floor.

DR. URMSTON: We will start in on the "Outline." We are ready for Question No. 1 on Item No. 1, which is the Outline giving the organization and administration as presented by Dr. Foster last night. If you would like, we can have Dr. Foster go over the highlights again. For those members who were not present, we had a real team last night to explain each outline, and then I asked you to present written questions so that they would be presented to the Committee or presented here this morning relative to any particular point. We have the answers, so we are ready for your questions.

Are there any questions on Outline No. 1, Item No. 1?

The next Item is No. 2, Constitution and By-Laws.

DR. DONALD BRASIE: I have one inquiry on Article X—Participation of Physicians, next to the last paragraph, page 7, Section 3:

"The registration application shall specify the obligation of the doctor of medicine to render such medical services as he may be called on to render for subscribers of Michigan Medical Service or their dependents under the terms of the subscriber's Medical Service Certificate unless for good cause he is unable to do so."

As I read this, it seems to me that it applies back to the fact that if called by a subscriber, he must go.

"... but this shall not prevent suspension from further services by the Board of Directors after notice and hearing for good cause shown."

Does this force the physician to answer the call?

MR. LAUX: Dr. Brasie, I don't feel that it does. The registration application which the physician will sign simply indicates his willingness to participate under the arrangements for Michigan Medical Service. His obligation is the same as now. To render the services and to abide by the By-Laws and medical service provisions, doesn't make it mandatory for the physician to give his services any more than it is now mandatory for him to accept a patient. If he now declines the patient, he may continue to do so. It also specifies, "unless for good cause," and if his cause is a good one there will be no question. The provision is intended to cover the circumstance where a physician will commence services and later refuse to provide services for the patient. By that I mean that the subscriber, once service is commenced, is, of course, entitled to have the service continue the same as now. There is more or less a moral obligation to continue the service once it is commenced but not otherwise.

THE SPEAKER: Does that answer your question?

DR. BRASIE: Yes.

THE SPEAKER: Has anybody else a question on the Constitution and By-Laws?

DR. L. J. JOHNSON: On page 6, under Article IX, the 2nd Section, it seems that the contract which is entered into between the subscriber and the Medical Service does not create any liability on the part of the corporation. I wonder if that is legal?

MR. LAUX: The Enabling Act specifies that the liability for malpractice shall remain with the individual physician. It is definitely a provision of the Enabling Act and therefore the provision as specified in the Constitution and By-Laws would be legal.

THE SPEAKER: Are there any further questions

on Item No. 2? Item No. 3 is relative to the Administration Chart setup.

Item No. 4.

DR. WM. S. REVENO: As to the income, which is the basis for the contract entered into between the Medical Service and the subscriber, I feel that some mention should be made in this contract form that the insured receives which would specify the income limit, which constitutes the basis for the agreement.

MR. LAUX: The income limit was not placed in the contract for the reason that there is objection to stigmatizing the plan as a "poor man's plan" or as to revealing the income limits of the group to be included. That will be the administrative regulation. It may be desirable to place in the application of the subscriber the statement that his income is below the amounts indicated, and if his income exceeds that amount the certificate will be terminated. It was left as is for the reasons mentioned, the labor groups objection to having these plans indicated as income-limited plans; but the administrative regulations will insist on the income requirement.

DR. URMSTON: Are there any further questions on Item No. 4?

DR. E. D. SPALDING: It seems to me rather essential that some attention be given the medical profession as well as avoiding stigmatizing some other groups of society, and if it is not specifically understood, maybe not on the face of the policy but certainly in the application, that such arrangements are made on the distinct understanding that this applies to salaries of only so much, it seems to me the whole thing is going by the board. Otherwise, any Tom, Dick or Harry can say, "If Tom Dick or Harry can get this for so much, so can I." It seems to me that should be incorporated as the very essence of the thing itself.

MR. LAUX: That is the firm intention of The Council.

DR. SPALDING: I would like to see it in writing.

MR. LAUX: That can be done.

DR. ROY C. PERKINS: I think Dr. Spaulding's point is well taken and such a statement should be incorporated in Item 4A.

MR. LAUX: I suggest that you present that to the Committee. It will be a good inclusion in Item 4A as a statement from the subscriber in regard to his income.

DR. L. J. HIRSCHMAN: I would like to inquire whether under that same Section, it would not be better, where the amount of medical services is given—the amounts of \$375.00 in (a) and \$550.00 in (b)—to insert the words, "Not to exceed certain amounts." Here is an implication that they must receive the amount of \$375.00 or \$550.00. Would it not be better to indicate that as a maximum amount of services to be received by an individual in one year, perhaps say "an amount not to exceed (a) \$375.00, and (b) not to exceed \$550.00."

MR. LAUX: Dr. Hirschman, you are speaking of the Medical Service Certificate, Item 4?

DR. HIRSCHMAN: On page 2 of Item 4, where it says, "Medical services in the following amounts may be received under this Certificate." Where it says, "may be received," I believe it would be better to say, "amounts not to exceed \$375.00, not to exceed \$550.00, not to exceed \$875.00."

MR. LAUX: The only question is the negative position which such phraseology takes. It was phrased originally in that manner but it was felt that instead of putting it negatively, "you shall not exceed," it would be better to say it positively, that

you would give up to the amount indicated. That is the only point. It was originally the way you suggested, but it was felt, in presenting the plan, it would be better to say "services up to a certain amount" rather than to say "you shall not exceed the amount." It means the same thing.

DR. HIRSCHMAN: The phraseology doesn't state up to a certain amount.

MR. LAUX: "Up to the amount" would be a good addition.

DR. URMSTON: That would be a repetition of what is in the other clauses but should be emphasized here.

Is there anything else?

DR. T. K. GRUBER: Last night, Dr. Woodworth brought up the question of, as he termed it, the chiselers, and the answer was given that provision was made for their suspension. On page 7, under Article X, Section 3, the 2nd paragraph, in the last two lines, the only thing that is said about suspension is, "but this shall not prevent suspension from further services by the Board of Directors after notice and hearing for good cause shown."

That has reference to the doctor who doesn't go to take care of his work. I see nothing in the way of teeth in this for the Board of Directors to haul doctors before this Board of Directors and say, "You have taken out too many appendices, you have done too many hernias, you have done too many this and that, and we are not going to allow you to continue under this plan." It seems to me that might well be written in there. The only thing that is said about suspension is in this paragraph, and that is only suspending the doctors who don't go and do their work. There is nothing about the ones who overdo their work. That is the thing that will wreck the plan, the overzealous bringing of patients under the provisions of this contract. Was that your question last night, Dr. Woodworth?

DR. WILLIAM P. WOODWORTH: Yes, I think that is about the sense of it.

DR. GRUBER: Have you found anything to answer your question?

DR. WOODWORTH: Not to answer what you are talking about. There has been nothing in there, to my way of thinking, that provides for the overzealous doctors.

DR. GRUBER: I make that suggestion, that there should be some teeth in the thing.

DR. WOODWORTH: I think it is very well taken, Dr. Gruber.

DR. G. L. McCLELLAN: Under Item 2, page 4, paragraph (d), is the following:

"A Medical Advisory Committee consisting of three (3) Directors shall be elected by the Board of Directors. In accordance with the general policy and subject to the authority of the Board of Directors or its Executive Committee, the Medical Advisory Committee shall have authority to supervise arrangements with physicians concerning participation, fees, and the rendering of services according to the provisions of the medical service plan."

Does this supervising of medical services cover Dr. Gruber's suggestion?

MR. LAUX: Yes. That was the point of the discussion last evening, in reply to Dr. Woodworth's question; namely, that such a Medical Advisory Committee would be established and a definite plan of procedure for handling the "chiselers" would be set up. The authority for that arrangement is sufficient in the By-Laws according to advice of legal counsel both in the provision to which you have referred and also in the provision which Dr. Gruber has read pointing out that the arrangements in regard to the eligibility of the doctor to participate shall not prevent his suspen-

sion from further services by the Board of Directors after notice and hearing for good cause shown. This is sufficient to cover the case where the Board of Directors may have to prohibit a doctor from continuing to provide services under the plan.

DR. URMSTON: Let us keep up to date on the items we are discussing. You were supposed to study this thoroughly and write out your criticisms, so we will not refer back to something we have passed over until the end.

Are there any other questions on Item No. 4? If not, we will take up Item 4A, which is the Individual Subscription Application. That is self-explanatory.

4B is the Family Subscription Application.

Mr. Laux explained, last night, that the Insurance Department has suggested that each of these items can be placed on one page, which will make it easier for the applicant to read and understand.

The next is Item 4C, the Subscription Card.

Item 5, the Group Agent Certificate.

DR. COOKSEY: In Item 5, page 3, I think it might be a good idea to insert the provision that would not permit a subscriber who receives the maximum benefits to have his policy lapse, because it seems to me just because he has completed all of his payments—after receiving the maximum benefits, that subscriber becomes the best advertising medium for such a plan. Any one who receives a large benefit and keeps his policy in force would certainly be a good advertiser, but if it becomes necessary for him to allow his policy to lapse, he is not going to say much about this. So I think some provision should be put in whereby that individual may not have his policy lapse. It may be that he should become entitled only to a maximum amount of service less the amount of unpaid balance, because I see no way of compelling him legally to pay up the unpaid balance after he has received the amount of the maximum benefit.

MR. LAUX: There is, as you say, no way of putting in the certificate the requirement that the subscriber must keep his certificate in force by paying the subscription payments after he has used the total maximum allowed. However, the fear that the subscriber will cancel or decline to pay further subscriptions after he has used up the benefits is obviated by the fact that he knows that if he discontinues he will not be eligible for enrolling in succeeding years. If he will lose all of the advantage of participation in succeeding years he had best keep his certificate in force.

DR. COOKSEY: But there is a danger that he may not be in condition to continue, and certainly it is much to the advantage of the Service organization to have him continue it even if they have to subtract that amount from the maximum benefit.

MR. LAUX: You mean that having incurred an illness, he may be out of work and cannot continue his subscription?

DR. COOKSEY: Yes.

MR. LAUX: The same problem arises in connection with the subscriber who becomes unemployed. He cannot continue his subscription and we would like to have him continue it. It is more essential that he continue it than before, but we cannot do the impossible. We have to have a certain amount of money from the subscribers to support the plan. Such special arrangements can be made after a surplus fund has been accumulated which can be used for that very purpose, but not until then.

DR. L. J. BAILEY: Why would it be impossible

to provide that the service available be in proportion to the annual premium paid? If he pays monthly, he is eligible to one-twelfth of his yearly service; if he pays quarterly, he is eligible in that quarter for one-quarter of his yearly service.

MR. LAUX: To stagger the benefits would hinder the rendering of service when a catastrophe really occurs. He may require all of the benefits in one month, and to offer him only one-twelfth of the benefits would be disadvantageous to him at the time when he needs assistance most. So it is felt better to offer him the full benefits at the time he needs them.

DR. ROY C. PERKINS: One question came up in regard to the medical services under this plan of benefits. It does not cover medical services for the first month. On page 2 of Item 5, under Benefits, Part II. "Medical services are not provided in the first month of this subscription. Accident cases have immediate service on acceptance of the applicant." The question is, this contract covers a period of one year only. If the applicant renews his subscription in the following year, does that same provision hold true, namely, that he is not entitled to medical services for the first month under this plan?

MR. LAUX: No, Dr. Perkins. A certificate is issued in perpetuity; that is, it may be continued for ever so long as the subscription payments are met. All the waiting periods, when once overcome, are overcome forever, so that when the first month waiting period is met it is no longer a waiting period in succeeding renewal subscription periods.

DR. C. E. LEMEN: It is possible that a subscriber might like not to continue his payments, especially on a monthly basis, after he had received a considerable amount of service; because of unemployment he might not be able to continue. Couldn't some provision be inserted in his policy so that if his policy were allowed to lapse, any deficit or any delinquent payments would have to be made up after he was in a position again to continue his payments in order to receive any further services?

MR. LAUX: The Board of Directors, subject to the approval of the Insurance Commissioner, may specify the requirements for reënrollment after a lapsing of a certificate. The regulations would differ with different subscribers and under different circumstances, but the provision you suggest could be required if it were felt that a certain subscriber, having once lapsed his certificate, should be made to pay up the unpaid subscription payments before being accepted again into membership. That could be insisted upon, but I think it is a matter to be left to the Board of Directors to set up those regulations, subject to the approval of the Insurance Commissioner.

DR. LUTHER DAY: Relating to Item 5, Part II, as to the \$5.00 assessment fee. Clarification on this paragraph is needed. The first question that comes to mind is, what method of forceful collection is the Michigan Health Service to have in collecting this \$5.00 initial medical fee. Second, if this fee be not collected, does it jeopardize the doctor's collection? Third, how many initial medical fees are collected during one year? Is this \$5.00 to be collected on each illness during the year or just one illness? I can conceive a patient making fifteen separate calls during the year, in which at no time his medical account would be more than \$5.00 for any one time, and yet during the year he would have to pay \$30.00 from his own pocket or pay \$5.00 on each one of those individual sicknesses.

MR. LAUX: As to your first question, the method of collecting that \$5.00 would be through the group collection procedure. The subscriber has agreed to pay the subscription rate. During a particular month he may require the services of a physician. The collection of the initial \$5.00 will be through the regular payroll subscription collection. The physician rendering the service will not have to bother about the collection of that item. He performs the services for the patient, renders the bill at the end of the month for the services which may be required, and that is all he has to be concerned with. The Michigan Medical Service will then, on receipt of your bill—which we will say is for \$15.00 for the month—know that this particular subscriber is liable for the first \$5.00 payment. The bill going out to the subscriber will indicate that this item of \$5.00 is due from that particular subscriber. If he fails to pay, his certificate is terminated as provided in the certificate itself. This will facilitate the collection and the payment of the \$5.00 item.

As to your third questions, the assessment is only for once in the year, the first \$5.00 of the total value of the medical services required in a year and for all members. Under the family certificate only one payment of one item of \$5.00 will be necessary up to the full amount of service required. The \$5.00 will not be charged for each service nor for each member.

DR. L. J. HIRSCHMAN: This form should be changed in order to be identical with the previous ones. The words "up to" should be inserted under (a), (b) and (c) on the bottom of page 2, where the amounts are specified.

MR. LAUX: Would this be acceptable as you suggested first: "that medical services may be received under this certificate at the expense of Michigan Medical Service in each subscription year after the first \$5.00 of medical expense incurred is paid by the subscriber to Michigan Medical Service up to the following amount," and then indicate the amounts?

DR. HIRSCHMAN: Yes.

DR. URMSTON: Are there any further questions on Item 5?

If not, we will take Item 6, the Fee Schedule. Are there any questions on the Fee Schedule?

DR. H. B. HOFFMAN: Is there any hookup with the University Hospital? Has there been any understanding with the University Hospital on this present fee schedule in cases that wish to go there for treatment or are referred by their family physicians?

MR. LAUX: The question of the fee schedule has not been discussed to that extent with the University Hospital. However, I believe the schedule which is in use in the hospitals has been one of the schedules that was considered in the drafting of the schedule of services. Payments to be made to physicians will be the same regardless of where they are, whether in the University Hospital or any other hospitals. The payments will be in the same manner equally throughout the state.

DR. DONALD BRASIE: In the fee schedule, it is almost impossible to get absolute equalization. The important thing about the fee schedule—at least to some of our men who called me up before I left—was that by setting up this fee schedule you are establishing in the eyes of the public a maximum level for charges to 89 per cent of the population, which 89 per cent come within this group of \$2,500. By setting up this schedule, you are telling them that the Michigan State Medical Society and its component members are willing to accept this

as a maximum fee. It seems that it would not be long before the compensation companies and the insurance companies would say, "If you are willing to do this for this income group, this is the fee you will also take from us." The precedent is then established that you cannot get over or above or beyond that amount. You have placed a maximum limit upon the income that the doctor may earn from this sort of schedule; you have placed no minimum. The physician must take his pro rata share of the income per month minus expenses, which may be the fee schedule as contemplated and it may be something less, as it was in San Francisco, where it became 40 per cent less. We must adopt a fee schedule—on an actuarial basis, of course, one is necessary; but from a public relations standpoint, wouldn't it be better if the fee schedule were higher, even if we anticipated a percentage return? I was requested to ask if something couldn't be done in that direction.

MR. LAUX: Dr. Brasie, the points you raise have been the ones that have been of great concern and indicate the problems involved in the preparation of the fee schedule and the distribution of such a schedule. I think it should be borne in mind that this schedule is designed for the group to be served, and that it is clearly understood that this is the median minimum schedule of fees for the group, hence I see no reason why an insurance company or outside agency should feel that they are entitled to the same schedule of payments. This is a particular, special arrangement and any one of your patients who is eligible can benefit by participating. It will be an added attraction for them to participate, to come within the benefits of such special provisions. There is no reason why an insurance company should have any claim on your services at any rates other than those you care to establish. It has also been true that schedules have been established under workmen's compensation insurance but they have not, to any great extent, affected the private fee arrangements of patients who know they are not included in that group. Likewise, they must participate in the M.M.S. plan to receive its benefits.

In so far as setting the scale higher, at some arbitrarily high level, and then accepting a greater reduction, I think there are two valid objections to that. First, a certain amount of information about fees will be made available. If you set those fees at some arbitrarily high level, there is going to be a public reaction that this is simply an undertaking of physicians to get as big a fee as possible. Second, and more important, is that having once established such a schedule and then later being required to take a bigger cut in it, would create a very bad impression in the minds of the physicians participating. Such a procedure was followed in the bureaus of Washington and Oregon. They arbitrarily set the schedule at 140 per cent, and then they had to cut that very appreciably. The result was that they created a strong objection because the physicians said: "Look, we are only getting 40 or 30 per cent of our schedule," and it was a very bad thing. The physicians forgot that the schedule had been set arbitrarily high. I think it is better to be straightforward in the matter and put the schedule at what the prevailing charge is and recognize that it is a fair fee for the service to be rendered. I think it is a particular concession of the physicians to this group of subscribers, and I think it will be so recognized.

DR. L. J. HIRSCHMAN: Don't you think that somewhere in this schedule a paragraph containing that very statement should be printed: that these fees are rendered at this low level as a concession

from the medical profession of Michigan to this particular scheme?

DR. J. M. ROBB: Do you think that it might be stated somewhat as Mr. Laux has said—that the profession considers this a median minimum fee for this service rather than the statement that it is a concession to anyone? I do agree with Dr. Hirschman that a statement should be made to some extent emphasizing this phase, but the language will have to be couched rather beautifully.

DR. E. D. SPAULDING: I object to the reference to this schedule as a median minimum schedule for the \$2,000 income group when it contains a hemorrhoidectomy for \$50.00, and the listing of the radiologic figures. This is no minimum median schedule. (Laughter.)

MR. LAUX: On page 2 of the schedule is a provision, or a statement, somewhat in line with the discussion, that this schedule of payments is the proper level of charges for the services to be rendered to the groups of persons who will be enrolled. It might be couched in a little more specific language to indicate that this is the median minimum schedule of payments or charges to this group, if that is your wish.

DR. L. J. HIRSCHMAN: I don't want to be on my feet very often about this, but I believe that median minimum is going to lead us into difficulties. I think, as I stated before, that this should be couched in proper language by the Committee, that these fees which are being mentioned here are rendered at this level because of the cooperation of the members of the Michigan State Medical Society; and it should be stated that it is a concession, whether you word it as such or not, and that it is not a normal fee but it is done in order to provide adequate service to a low income group. I think that should be stated in a way that is definitely understood.

DR. URMSTON: That part can be readily changed. As far as the schedule is concerned, you know the average; the Committee can bring in recommendations as to those changes so that there is no further question on the fee.

DR. R. L. WADE: How are the medicines and the materials and the supplies expected to be paid for? In a statement here it says they are not included in this charge below.

MR. LAUX: The same way they are paid for now. M.M.S. cannot include those costs. The drugs which a physician uses in his ordinary office practice for which he now makes no extra charge would be considered as being included, but the payment for special drugs, appliances, etc., cannot be included. Such costs must be met as they are met now, by the patient or through other sources.

DR. WM. P. WOODWORTH: Regardless of what fees are established for house calls, it becomes obvious that if we are going to succeed with this plan we must have a cordial relation between the recipients of our service and the medical profession. Many of the men have quite a large office practice and make very few house calls. That is just from necessity. Assuming that someone calls you and wishes you to make a call at his home and you find that this is an apparently trivial matter and it doesn't clear up right away and you suggest that he come to your office for further treatment. That may be your idea of the best way to handle it, but the patient may think otherwise and insist that you continue to come to his home. As our setup is at present, of course, you can decline to make further home calls and they have the privilege of quitting you and going to some other

physician. What might the possible reaction of these people be to a physician who considers the home calls unnecessary?

DR. J. M. ROBB: I see that in the City of Detroit there is no schedule for miles of travel. I wonder if, in answering Dr. Woodworth's question, a specific statement was made regarding mileage in the city, whether that perhaps could be used as a reason for coming to the office. There are two factors: that is, you will more rapidly run up the fee to \$375 or whatever the amount is; and then if you do put in the matter of mileage it should be more than it is in the country because driving through Detroit, even if you fly like Dr. Spaulding does, is a problem. I think there should be in that schedule some very definite statement which will do what Dr. Woodworth is suggesting, incline to make them come to your office for treatment.

DR. P. L. LEDWIDGE: Couldn't the doctor simply explain to the patient that he has so much in the bank—say \$350—and if he wants to spend it for home calls, it will take so much; and if he wants to spend it for office calls and have something left for reserve, he can do it that way. A man's common sense should be his guide.

THE SPEAKER: I would like to ask Dr. Woodworth what he does to that patient who refuses to come to his office and asks him to come to his home?

DR. WOODWORTH: The patient has to pay for that. Under existing conditions, that patient is under no particular obligation to come to me or am I under any particular obligation to go to him. I can suggest that he get some other doctor. Is that going to work under this plan? Is he going to be satisfied with that?

THE SPEAKER: I don't think it would be any different under this plan than it is under private practice. I think the same is true about the mileage situation in Detroit.

DR. WOODWORTH: I have never been able to make calls on the basis of mileage in the City of Detroit.

DR. URMSTON: We will have Mr. Laux answer the question.

MR. LAUX: I think the question has been pretty well answered in that the present practices will govern; that is, what is being done now will continue. If mileage is charged, mileage will be charged according to the provisions made; if it is not charged, it will not be charged under this arrangement. I think it is a matter for the individual physician in his own practice to decide. One doctor answered the question very well the other evening when he said that the physicians in the locality tend to control the matter entirely. In some localities the patients have been educated to require the doctors to run to their homes; in other localities the physicians have educated the patients to come to their offices. It is a matter for the physicians to decide. The Michigan Medical Service, offering ready and immediate payments for the services rendered, will, of course, tend to increase the problem slightly in that the patient will feel more free to call and the physician will feel more free to provide the service. A certain amount of that will be for the good of the doctor and the patient, but we hope that through the regulations that we have mentioned for controlling chiseling, the requirements on the subscriber limiting his benefits and the deductible feature we have enough devices to keep this matter in line.

DELEGATE: Isn't it a fact that this patient has a right to discharge that doctor also, if there is a difference of opinion? The doctor himself, if he is honest about this patient and thinks he can come

to the office, tells him so; if the patient doesn't think so, that patient still has a right to get another physician and discharge this one. Therefore, it works on the family-patient relationship and it answers itself. If you tell the patient that he must come to the office, you really believe it so, and if the patient takes your word for it as he does in general practice, he is going to follow your suggestion. But should he not think so—and the doctor is not correct all the time either, if the patient does not think he is able to go to the doctor's office, he has the prerogative of discharging him and securing the services of another physician.

DR. URMSTON: All provided, this does not interfere with existing conditions of practice.

DR. WM. S. REVENO: To obviate the question raised by Dr. Brasie of Genesee and to clarify the question raised by Dr. Hirschman with regard to the fee schedule constituting a concession on the part of the members of the Michigan State Medical Society, isn't the fact that the schedule as established constitutes a basis for the premiums as charged this particular group of people. Wouldn't it be advisable to include some statement to that effect if that is the case in Item 6?

DR. URMSTON: That could easily be put in. We have to bear in mind always in the changes whether the insurance department would raise any objection. When the Michigan Medical Service Board of Directors gets into action a good many of these points will be merely a matter of administration.

We will take up Item 7.

DR. ED MEISEL: What arrangements are going to be made in regard to payment of diagnostic facilities that a lot of doctors, especially in the northern counties, are doing in their own offices to save their patients twenty or twenty-five miles of travel to diagnostic centers. Some doctors are equipped to do blood counts, basal metabolisms, et cetera. Are the physicians in the counties that are far from diagnostic centers going to be paid for their work in regard to blood counts and electrocardiographs and that type of diagnostic work?

MR. LAUX: It is provided that payments will be made for diagnostic procedures of that type when performed by a Doctor of Medicine. So if a physician in his office is called upon to perform certain of those services, that are customarily included in his office calls, he would not render a separate charge for them; but if a separate diagnostic procedure is required and if it is performed by him or by a physician to whom he refers, that pathologic procedure or other procedure will be paid for at the schedule of charges provided.

DR. MEISEL: What safeguards are there going to be, what systems are there going to be set up whereby a patient cannot have a basal metabolism more than twice a month; or if he had his chest x-rayed the previous month, is he liable to have it repeated again in case other diagnostic work is to be done? For instance, if a patient has a basal metabolism and a blood count and a dozen other diagnostic procedures, is that same patient eligible for the same treatment a month later?

MR. LAUX: There will be a record kept for each patient, of course, and the services which he has received will appear on that record. If in the second month the same diagnostic procedure were requested, the Medical Advisory Committee would question whether that diagnostic procedure need be repeated.

DR. ED. MEISEL: Would there be any central record through your own office?

MR. LAUX: There will be a central record of each patient. The services received will be centrally recorded.

DR. URMSTON: Let us go through this rapidly as the time is getting short.

We will take up Item 7, Statement of the Arrangement between Physicians and Michigan Medical Service. Are there any questions on Item 7, Item 7A and Item 7B? Also 7C? No questions.

That, gentlemen, concludes the Michigan Medical Service Plan as presented to you by The Council. If further questions occur to you, will you appear before the Reference Committee this afternoon and present your ideas; they will be glad to hear them.

I want to be a little bit personal in my last remarks. I want to thank you for being so considerate of the Chairman in his deliberations because this is the Chairman's last appearance before you as Chairman of the Council. He is going to resign as Councilor this year. You will not have to bear with him any more.

I thank you very much, and now I will turn the meeting over to the Speaker. (Applause.)

THE SPEAKER: Please remember that you are invited to attend any of these Reference Committee meetings if you care to do so and discuss any of these reports, especially this Michigan Medical Service.

The Michigan Medical Service plan will be turned over to the Reference Committee on Standing Committees. According to the Handbook, this afternoon we are scheduled to start at three o'clock, but a number of men think it would be advisable if we started at two-thirty. In that way we can get off the reports of the Special Committees before the Reference Committee brings in its report on the Medical Service Plan.

If there is no further business to come before the morning session, we will recess.

The meeting recessed at twelve thirty-five o'clock.

Recess

Monday Afternoon Session

September 18, 1939

The meeting convened at two forty-five p. m., with the Speaker, Dr. Philip A. Riley, presiding.

VII. Reports of Special Committees

VII-1. MATERNAL HEALTH COMMITTEE

THE SPEAKER: We will have the Reports of the various Special Committees, starting with the Maternal Health Committee, which is printed in the Handbook and is referred to the Reference Committee.

VII-2. MENTAL HYGIENE COMMITTEE

THE SPEAKER: The next Report is the Annual Report of the Committee on Mental Hygiene.

DR. MARTIN H. HOFFMANN: Mr. Speaker and Delegates: The Report of the Committee on Mental Hygiene is published in the Handbook, and very briefly can be crystallized into these few sentences: That the activities of the committee were along the line of education, both of the public and of the profession. To that end, thirteen focal points in the State were organized from which speakers could be sent out, and the surrounding County Medical Societies were notified that speakers were

available. Some of them made use of these facilities.

THE SPEAKER: The Report will be referred to the Reference Committee.

VII-3. WOMAN'S AUXILIARY COMMITTEE

The Annual Report of the Advisory Committee to the Woman's Auxiliary.

DR. L. C. HARVIE: You will find the Report in the Handbook, and I think it covers the ground fairly well. Since going to press, one more Auxiliary has been organized. It includes the Counties of Gratiot, Isabella and Clare. I think the Auxiliary this past year has done an exceptionally good job in organizational work, and one of the pleas from all new auxiliaries is this: What can we do? This organization certainly has the interests of the medical men at heart more than any other organized group that I know of, and they want to work. It's up to this body and Council to formulate some sort of a program that will put these women to work. They all say they don't want pink teas and bridge parties all the time; they want something to do that is going to help us. So I earnestly urge this body and The Council to formulate some program for them to work on. I don't think you can evaluate the amount of good their public relations activities have done. With this new program of Michigan Medical Service, possibly you will have a liaison between the lay people and your Medical Society that you might not get in any other way.

I earnestly urge the Counties, or the men here who come from Counties that are not organized, to go back and use their influence to get their Counties organized. There are 4,325 medical members and only about 1,000 Auxiliary members. That is less than one-quarter of what we should have.

(Applause.)

THE SPEAKER: The Report will be referred to the Reference Committee.

Dr. Penberthy, will you give us the Report of the Radio Committee?

VII-4. RADIO COMMITTEE

DR. GROVER C. PENBERTHY: The Report of the Radio Committee is printed in the Handbook. In addition to the twenty-one talks that were delivered by men in Detroit and throughout the State, we had five other talks that were either taken from the American Medical Association series of talks or from some other source. This summer, in addition to the program throughout the year, which ended in the spring, the Committee was asked to provide two speakers to talk on poliomyelitis. The Committee throughout the year developed original material that would be diversified to cover all of the subjects, and as stated in the Report, there is a great opportunity for a physician with some dramatic ability to work out a few of the programs that can be presented in this fashion. The interview type program used during the year seemed very satisfactory, and I would recommend that the Committee, next year, consider that as the type of broadcast. The various talks were mimeographed by the Extension Bureau in Ann Arbor, and distributed to the various stations throughout the State.

THE SPEAKER: That report will be referred to the Reference Committee.

Dr. Gruber, will you give us the Report of the Liaison Committee with the Michigan Hospital Association.

VII-5. LIAISON COMMITTEE WITH HOSPITAL ASSOCIATION

DR. T. K. GRUBER: The Report in the Handbook might need a bit of explanation. As stated, the highly controversial subject that was before the two organizations during the first part of the year, group hospital insurance, made it seem to me, as Chairman of the Committee, that the liaison with the hospitals should be handled by the Executive Committee of the Council, and it was so handled. Finally a satisfactory arrangement was brought about. I am still of the opinion that more cooperation should be had between the medical profession and the hospitals as organizations. The members of the medical profession are using the hospitals; they are on the staffs of the hospitals, and I see no reason why the various problems that the medical profession have in connection with the hospitals might not be ironed out better if more conferences of the two groups could be held. The hospitals and the medical profession are not very far apart on any of their problems. There are some differences of opinion, to be sure. It is very evident that they can be gotten together because of the terrific controversy that was raging about a year ago which was finally ironed out and fixed up perfectly satisfactorily all the way around. I feel that this Committee could be of great service in ironing out these difficulties.

THE SPEAKER: That report will be referred to the Reference Committee.

VII-6. LIAISON COMMITTEE WITH THE STATE BAR

The Report of the Liaison Committee with the State Bar will be referred to the Reference Committee.

We will now have a Report of the Membership Committee.

VII-7. MEMBERSHIP COMMITTEE

DR. CHARLES E. DUTCHESS: Mr. Speaker, it is difficult for me to add much to the Report which is published in the Handbook. A very high percentage of eligible physicians are already members of the State Society. What we attempted to do was to provide that an invitation to join organized medicine be given to each eligible physician, and we wanted that invitation to come from the component society in whose territory he lives. We made no attempt to high-pressure anyone. We did try to make sure that all eligible men were invited to join the State Society, and we supplied the local societies with folders which had previously been prepared by the State Society which bring out the very material advantages of membership.

THE SPEAKER: This Report will be referred to the Reference Committee.

Dr. Miner, have you anything to report on the Iodized Salt Committee?

VII-8. IODIZED SALT COMMITTEE

DR. FRED MINER: I regret to announce the illness of Dr. Cowie who requested me to present a Supplementary Report to the brief one which is printed in the Handbook.

Supplementary Report

During the past year the Iodized Salt Committee has had several meetings in Detroit with a committee from the Michigan Salt Producers Association for the purpose of getting out a circular for the parents of school children informing them of the desirability of seeing that their children receive iodized salt. This little pamphlet, entitled "Michigan

Children Need Iodized Salt," is printed in attractive form, copy of which is attached.

In addition to this, the Committee has completed an exhaustive review of all the literature that has accumulated since the introduction of iodized salt in Michigan. Dr. Cowie and his associate, Dr. John J. Engelfried, have completed a survey of the iodide content of iodized salt—samples purchased on the open market from all sections of Michigan, and subjected to careful analysis. This report is practically ready for the publisher.

During the coming year it is the wish of the Committee to establish systematic analyses of the various brands of iodized salt on the market in Michigan.

The question of making plans for the appointment of a permanent commission for goiter prophylaxis in this country has come up and the Committee feels that its headquarters should be in Michigan. Accordingly, we hope to have the Committee continued as at present and to give you even a better report of our activities in the course of another year.

D. MURRAY COWIE, M.D.
Chairman, Iodized Salt Committee.

Addenda

A word of explanation is in order relative to the endemic goiter prophylactic commission. Your committee was first appointed in the Pediatric Section in the year of 1922, or seventeen years ago. It has functioned more or less continuously since that time with the addition of only two new members. All of its recommendations have been brought to the House of Delegates for proper approval and endorsement. The use of the original formula for iodized salt has successfully stood the gaff of all departments of medicine. The results, as you know, are highly gratifying. Michigan's Iodized Salt formula is used from Nantucket Island to the Philippines, in Canada and the entire United States. Your State Committee is the only medical organizational unit in this country which is working with the salt producers and conducting systematic analyses for iodine content of the various salts produced. At the 1938 International Congress for Study of the Diseases of the Thyroid it was learned that your Committee is regarded by the men abroad as the prophylactic committee of North America. It is being interrogated for facts and figures from newspapers and magazines. The field of study has gone far beyond the boundaries of our State, yet 85 per cent of the table salt produced in this country is put out by the Salt Producers Association of Detroit.

The need for a perpetual medical committee or commission is apparent. The problem before us is whether to recommend this to you as a State organization with guest collaborators from other states and Canada or to take steps to formulate such a commission with one of the specialized national organizations. Your Iodized Salt Committee desires to study this problem this coming year.

F. B. MINER, M.D.
Secretary, Iodized Salt Committee.

THE SPEAKER: This Report will be referred to the Reference Committee.

Dr. Arnold, will you report on the Advisory Committee on Nurses' Training Schools?

VII-9. NURSES' TRAINING SCHOOLS

DR. A. L. ARNOLD, JR.: The Report of the Advisory Committee is complete in the Handbook. We have accomplished very little, if anything; I

think probably due to the inexperience of the Chairman in handling politics and women. (Laughter.)

THE SPEAKER: Thank you, Dr. Arnold! We shall arrange to have the Chairman take some lessons.

Is there anything to come up under the head of unfinished business?

IX. Unfinished Business

IX-1. PROPOSED AMENDMENT TO CONSTITUTION—RE: MEMBERSHIP

DR. FOSTER: Mr. Speaker, there was referred to the House of Delegates for 1939 a proposed amendment to the Constitution, laid over from last year. It was to Article 3, Section 1, by adding the following sentence: "Membership in the County Medical Society on a basis not including membership in the State Medical Society is not recognized." This, I believe, Mr. Speaker, was occasioned by the fact that in some societies certain types of membership were recognized whereby the individual chose to pay dues to a County Medical Society but did not choose to pay his State dues. He wished to be a member of a County Medical Society and terminated his membership there by paying simply the local dues. The idea was not, however, to interfere with the established types of special membership such as exist, for instance, in Wayne County, where they have a rather complicated list of various types of members—honor members, etc. I think the idea of this was in no way to interfere with that, but it was to prevent a man in active practice paying local County Society dues and choosing not to pay the State dues and thereby saying he is a member of a County Medical Society, when, as a matter of fact, membership in the County Medical Society should mean membership in the State Society and membership in the American Medical Association. I bring that up because it did raise the question that it might interfere with the Wayne County special designated memberships. That was not the intention.

THE SPEAKER: Does that explain it to everybody? This Amendment to the Constitution was introduced a year ago at the meeting in Detroit and is to be voted on this year. We shall now discuss it.

DR. DUTCHESS: I am interested in this amendment because of other amendments which are to be introduced later. So far as active membership is concerned, that is adequately covered in the present Constitution in the following Section: It says, "Active members shall comprise all the active members of a component county society." It does, by the way, as you suggest, Dr. Foster, exclude certain forms of perfectly legitimate limited membership which various County Societies may offer.

DR. FOSTER: I chose rather not to mention specifically County Medical Societies, but I think I shall have to simply tell you why that arose.

I believe two years ago there were officers of certain components of the Wayne County Medical Society who were not members of the State Medical Society and still they were officers of some of the branch societies of the Wayne County Medical Society. Whoever brought that subject up brought it up because of that peculiar situation where a man was a secretary of one of the divisions of the Wayne County Medical Society and was not a member of the State Medical Society.

DR. DUTCHESS: Mr. Speaker, this is certainly covered if the Council chooses to enforce the present Constitution. However, shortly we intend to

introduce some other amendments which will define the various classifications of membership which the State may very properly offer to all of the component societies.

DR. E. D. SPALDING: In view of the fact that this matter will be explained by subsequent amendments to be offered, would it not be wise to temporarily table this until the others come out?

THE SPEAKER: The Chair will entertain such a motion.

DR. SPALDING: I so move.

The motion was seconded by Dr. Dutchess and carried.

THE SPEAKER: That is all we have laid over from last year. Is there anything else to come under the head of Unfinished business? We will move on to the resolutions.

XI. Resolutions

XI-1. SPECIAL MEMBERSHIPS

DR. PAUL ENGLE:

"WHEREAS, Dr. James B. Bradley of Eaton Rapids is in all respects eligible to be honored with a Membership Emeritus in the Michigan State Medical Society; and WHEREAS, The Eaton County Medical Society in regular session has instructed its delegate to present the name of Dr. Bradley to the House of Delegates for the consideration of this honor; THEREFORE, BE IT RESOLVED, That the House of Delegates of the Michigan Medical Society confer on Dr. James B. Bradley the honor of Membership Emeritus; and be it also

"RESOLVED, That the Secretary be instructed to address to Dr. Bradley a special letter expressing our appreciation of his many years of invaluable service to the Society."

I move the adoption of this resolution.

THE SPEAKER: Your resolution will be referred to the Committee on Resolutions, to be brought in for adoption later.

DR. A. E. STICKLEY:

"RESOLVED, That Milan Coburn of the Ottawa County Medical Society be granted Emeritus status. Dr. Coburn has practiced medicine for forty-six years and has been a member of the Michigan State Medical Society for thirty-two years."

I move the adoption of the resolution.

DR. FOSTER: For purposes of clarification, it might be well for me to read to you the requirements of Emeritus membership. A request was made of the various societies to submit these names thirty days in advance of this meeting so that the records, which are in the Executive office in Lansing, might be checked. A great many men whose years of service would seem to indicate that they had met the requirements have had a lapse of membership in the State Society, thereby breaking the continuity of this membership making them eligible. In Retired memberships, a man must have maintained his membership in the Society for ten years and have retired from practice. In Emeritus memberships, a man must have been in practice fifty years and he must have maintained a membership in good standing for twenty-five years. They are the two types of membership that are available to the members. There are some of these men who have not been accredited by the Executive Office. I have here the file which indicates that certain men have not been eligible because the records show that they have not kept up a membership.

I see here that it says, "has maintained a membership in good standing for twenty-five years." That has been interpreted previously as *continuous membership*. Whether that is the correct interpretation I don't know, but it is the interpretation that has been used in previous years, and that may be the reason why some of these men whose applica-

tions have been presented were not eligible. Whether this means twenty-five years at any time or twenty-five consecutive years I don't believe is clear in the Constitution.

DR. STICKLEY: I think that ought to be clarified.

THE SPEAKER: I will clarify it right now as it is given, so that your resolution will be all right if you get it typed in duplicate. Are there any further resolutions?

DR. JAMES J. O'MEARA: I have been requested by the Jackson County Medical Society to present the following names for Retired membership:

Dr. Henry Gray Glover of 331 W. Michigan Avenue, Jackson. Dr. Glover was born August 20, 1860, and is now seventy-nine years old. He graduated in 1882 from the Hannemann Medical College of Chicago. He began practice in Jackson, December 7, 1887; left in April, 1891, to be gone three years, then returned to Jackson. He left again the winter of 1905, to be gone seven years, returning the winter of 1912. He became a member of Jackson County Medical Society in 1913, and has been a very much respected and ethical member of our organization since then. In 1934 he was made an Honorary member of Jackson County Medical Society. In 1913 he also became a member of Michigan State Medical Society.

Dr. Walter E. Spicer of 115 Second Street, Jackson. Dr. Spicer was born September 9, 1855, and so is now eighty-four years old. He is a graduate of the University of Michigan in 1884, which was the first class to have a three-year course. He spent four and a half years in the suburbs of Utica, New York, leaving there for New York City, where he was associated with various ear, eye, nose, and throat clinics and hospitals for eighteen years. He came to Jackson on March 10, 1908, and has been here ever since then. He has been in practice fifty-five years. He also became a member of Michigan State Medical Society in 1908. In 1934 he was made an Honorary member of Jackson County Medical Society. He has always been very much respected and is a very ethical member of our organization.

THE SPEAKER: They are referred to the Resolutions Committee.

Are there any further resolutions?

DR. W. B. COCKSEY: The Wayne County delegation wishes to present the names of Dr. Don M. Campbell, Dr. William M. Donald, Dr. Stanley G. Miner, and Dr. Rollin H. Stevens for members Emeritus in the State Medical Society. These men have fulfilled all constitutional requirements and are continuing to render distinguished service.

THE SPEAKER: They will be referred to the Committee on Resolutions.

Are there any further resolutions?

XI-2. NEW SECTION

DR. RICHARD OLSEN: After the announcement this morning by Dr. Foster that no further sections should be added to the State Society, I am somewhat embarrassed. However, as I represent the Michigan Pathological Society, I cannot very well refuse to make this resolution. I think it is particularly pertinent at the present time when pathologists, who apparently represent the borderline between the medical practice and lay practitioners or those who would wish to get into medical practice, should clarify their situation. I think the pathologists should do everything they can to emphasize the fact that they are an integral part of medical practice. There is no recognition of pathologists in the State Society. I am not clear what can be done by a Committee. It is our feeling that the Michigan pathologists are entitled to representation as are the other sections which we have at the present time. We would be entirely in favor of any change made in the future to permit other organization of these sections, but we would like to be represented as are the other sections.

Dr. Olsen presented his prepared resolution:

WHEREAS: The Constitution and By-laws of the Michigan State Medical Society authorizes that "The House of Delegates shall provide for the division of the scientific work of the society into appropriate sections."

At the present time there is no appropriate section for the specialty of Pathology.

The Michigan Pathological Society, consisting of the members of the Michigan State Medical Society practicing Pathology, in a regular meeting in Grand Rapids, June, 1939, voted unanimously to petition the House of Delegates to provide for a Section in Pathology.

BE IT RESOLVED: That the House of Delegates authorize the formation of a Section of Pathology in the Michigan State Medical Society.

THE SPEAKER: This resolution will be referred to the Reference Committee.

Are there any further resolutions?

XI-1. SPECIAL MEMBERSHIPS

DR. A. L. ARNOLD, JR.:

"WHEREAS, Dr. George L. G. Cramer of Owosso has been in the active practice of medicine for fifty-one years and has been a constant member of the Shiawassee County Medical Society for over thirty-five years, and

WHEREAS, Dr. Cramer has been a very useful member of the Shiawassee County Medical Society, having been President and several times a Delegate in this House, as well as a very useful member of his community, and WHEREAS, he has been approved by the Shiawassee County Medical Society for Emeritus Membership.

"THEREFORE, be it resolved that he may be made a member Emeritus of the Michigan State Medical Society."

Dr. Harvey Hansen presented prepared resolutions for Emeritus membership and a prepared resolution for Affiliate Fellowship in the American Medical Association as follows:

WHEREAS, Dr. W. H. Riley of Battle Creek has been in practice for fifty-three years and has been a member of our Society for fifty-two years, and

WHEREAS, the Calhoun County Medical Society at its meeting May 2, 1939, voted to recommend him for member emeritus of the Michigan State Medical Society; therefore, be it

RESOLVED, that Dr. W. H. Riley is hereby elected member emeritus in the Michigan State Medical Society.

WHEREAS, Dr. C. C. Landon of Battle Creek has been in practice for fifty-four years and has been a member of our Society for over thirty years, and

WHEREAS, the Calhoun County Medical Society at its meeting May 2, 1939, voted to recommend him for member emeritus of the Michigan State Medical Society; therefore, be it

RESOLVED, that Dr. C. C. Landon is hereby elected member emeritus in the Michigan State Medical Society.

WHEREAS, Dr. John Harvey Kellogg of Battle Creek has been in practice for sixty-four years and has been a member of our Society for sixty-two years, and

WHEREAS, the Calhoun County Medical Society at its meeting May 2, 1939, voted to recommend him for member emeritus of the Michigan State Medical Society; therefore, be it

RESOLVED, that Dr. John Harvey Kellogg is hereby elected member emeritus in the Michigan State Medical Society.

WHEREAS, Dr. George C. Hafford is a member emeritus in the Michigan State Medical Society, by virtue of over fifty years in practice and over twenty-five years of active membership, and by election by the House of Delegates of the Michigan State Medical Society, and

WHEREAS, he has more than fulfilled the requirements for Affiliate Fellowship in the American Medical Association. now, therefore, be it

RESOLVED, that Dr. George C. Hafford of Albion, Michigan, be hereby nominated for Affiliate Fellowship in the American Medical Association, and that our Delegates be instructed to present his name in the American Medical Association House of Delegates.

XI-3. RADIO ADVERTISING

DR. GROVER C. PENBERTHY: Mr. Speaker and Members of the House of Delegates: I wish to present the following.

Dr. Penberthy presented his prepared resolution:

The Medical Profession has always coöperated in giving information which pertains to education that is for the best interests of the public. The radio today has become an important avenue for the distribution of educational information.

The type of medical advice furnished over the radio in connection with patent medicine broadcasts is becoming an

activity which is not for the best interests of the public. This type of promotion in behalf of self-medication is becoming more subtle and radio announcers are endeavoring to tie up their advertising message with some complimentary reference to the medical profession.

It is thought that the time has come for concerted action to curtail this type of activity in behalf of the lay public, which is unable to recognize the difference between correct medical advice and commercial propaganda, therefore be it

RESOLVED, that the Michigan State Medical Society request a conference between representatives of the broadcasting companies and the profession for the best interests of public health, to discuss the practice of prescribing medicine and giving medical advice over the radio, and be it further

RESOLVED, that the request for this conference be sent to the broadcasting companies, the American Medical Association and the Federal Communications Commission.

THE SPEAKER: Are there any further resolutions?

XI-4. NEUTRALITY

DR. RALPH H. PINO: Mr. Speaker, there is a matter that seems to be of interest to the medical profession, at least it ought to be. In this past year there has opened in Wayne County, in Dearborn, the new Veterans' Hospital. It accommodates 351 patients, and it is filled except for four or five beds that are maintained for emergency purposes. This is over twenty years after the last war started. In Battle Creek there is another hospital which maintains 1,800 beds, and it is likewise filled twenty years after the last war.

I apologize for not turning this over to the Committee on Preventive Medicine, but it is only just out.

Dr. Pino presented the following resolution:

WHEREAS the medical and allied professions are devoted to the common cause of the prevention, alleviation and cure of disease, the prevention of physical and mental suffering and of untimely death,

WHEREAS upon the preservation of these factors in life individually and collectively depends the very basis for all human progress in every activity of life.

WHEREAS war is conducive to the very opposite of these objectives,

WHEREAS great responsibility in the maintenance of the type of neutrality that shall maintain these objectives, now devolves upon the President and the Congress of the United States in keeping us out of war,

WHEREAS when its services are needed the medical profession of America stands ever ready at its country's call whatever the nature of its distress

WHEREAS it appears now that, in light of experience, the maintenance of the objectives of medicine depends on keeping as many countries as possible, including America, out of war, therefore be it

RESOLVED that the Michigan State Medical Society, in sympathy with the great responsibility devolving upon the President, his cabinet and the Congress of the United States, and desirous of giving our best judgment and help, in light of our knowledge as men who treat the wounds of war (and are still treating them from the last war), solemnly urge that no pressure be allowed by whatever seeming logic to cause America to enter the present European conflict, and be it further

RESOLVED, that copies of these resolutions be sent to every member of the House of Representatives and the Senate of the United States from Michigan, to the Presidents of the American Medical, Dental and Nursing Associations, to the president of each state medical association and to the Women's Auxiliaries of each state medical society urging similar action, in keeping with the scientific and humanitarian objectives of preventive medicine.

THE SPEAKER: We shall proceed to New Business.

DR. CHARLES E. DUTCHESS: I want to ask for information. Are amendments to the Constitution and By-Laws to be regarded as resolutions or New Business?

THE SPEAKER: New Business.

We shall now move to New Business.

DR. DUTCHESS: I offer the following proposed amendments to the Constitution:

X-2. PROPOSED CONSTITUTIONAL CHANGES RE: MEMBERSHIP

(Art. III)

Article 3, Section 1: Amend to read as follows:

"This Society shall consist of active members, honorary members, associate members, retired members, and members emeritus."

You will note that this proposed amendment omits the last sentence, which now states:

"Members shall be members of Component County Societies who have been certified to the Secretary of this Society and whose local and State dues have been paid."

It seemed to us that this sentence, which we propose to delete, is redundant, and as a matter of fact might be considered as leaving the door open for these illegal memberships which have been discussed earlier this afternoon.

Proposed amendment to the Constitution of the Michigan Medical Society, Article 3, Section 2:

"Active Members—Active members shall comprise all the active members of component county societies. To be eligible for active membership in any component county society, every person must be under license to practice medicine and surgery and midwifery by authority of the Michigan State Board of Registration in Medicine."

You will note again that the active membership of the State Society embraces the complete active membership of component county societies, so that there can be no legitimate active membership in a county society except that which is identical with active membership in the State Society.

Proposed amendment to the Constitution of the Michigan State Medical Society, Article 3, Section 3: Amend to read as follows:

"Honorary Members—County Societies may elect as Honorary Members any persons distinguished for their services or attainments in medicine or the allied sciences, or other services of unusual value to organized medicine or the medical profession. Upon recommendation of a County Society, the House of Delegates may elect such persons as Honorary Members of the State Society.

"Honorary Members shall not pay dues and shall not have the right to vote or hold office in any County Society or the State Society."

That is not any material change, perhaps, from the present definition of Honorary Members except it is more specific in the matter of paying dues and voting in both the County Society and the State Society.

Proposed amendment to the Constitution of the Michigan State Medical Society, Article 3, Section 4: Amend to read as follows:

"Associate Members—County Societies may elect as Associate Members:

"1. Persons not members of the profession but engaged in scientific or professional pursuits whose principles and ethics are consonant with those of this Society.

"2. Internes serving their first year in any approved hospital, internes of longer standing, resident physicians in training, and teaching fellows not engaged in private practice, but not after five years from the receipt of first medical degree (M.D. or M.B.).

"3. Commissioned medical officers of the United States Army, Navy, Public Health Service and Veterans' Administration on duty in this state who are not in the private practice of medicine.

"4. Physicians not engaging in any phase of medical practice.

"Upon recommendation of a County Society, the House of Delegates may elect such persons as Associate Members of the State Society. Associate Members shall not pay dues in the State Society, nor shall they have the right to vote or hold office in either County or State Society.

"County Societies may require Associate Members to pay certain local dues, out of which the JOURNAL subscription is to be paid to the State Society and for which such Associate Members shall receive the JOURNAL."

If you will examine the present Constitution critically, you will note that there is an apparent overlapping between the Honorary Members and the Associate Members. It seemed to our Committee that certain logical candidates for Associate membership should be provided for without the actual conferring of any honor on them. As a matter of fact, the definitions of these various classes of Associate Members here are based on the arrangement which has been in effect in Wayne County for some time and which has proved very practical. Furthermore, it seemed an arrangement which we felt would be entirely applicable to any County Society. I doubt if it is at present legal for Wayne County or any other County to have in effect this type of membership. This amendment would make it legal and would also provide for a ready classification of these memberships for any County Society.

The following Sections—5, Retired Members, and 6, Members Emeritus, are not changed.

Proposed amendment to the Constitution of the Michigan State Medical Society, Article 3, add a Section as follows:

"Section 7. Non-Resident Members—County Societies may elect and retain as Non-Resident Members physicians residing and practicing outside of the County who are members in good standing of their own County Medical Society. Non-Resident Members shall not have the right to vote or hold office."

You will note no provision is made for having Non-Resident Members of the State Component Society, but consistent with our previous amendments we make that provision for the County Societies.

X-3. PROPOSED CONSTITUTIONAL CHANGE RE: HOUSE OF DELEGATES

At present there is a conflict in the Constitution in Article 4, Section 3, which now states,

"The officers of this Society and the members of the Council shall be ex-officio members of the House of Delegates without power to vote."

As a matter of fact, The Speaker is one of the members of the Council and one of the Officers, but he does have power to vote in the House of Delegates.

We propose the following amendment to Article 4, Section 3:

"The officers of this Society and the members of the Council shall be ex-officio members of the House of Delegates, and, with the exception of the Speaker of the House of Delegates, shall be without power to vote in the House of Delegates."

Those are all of the amendments to the Constitution. After you have disposed of those, I wish to introduce some amendments to the By-laws.

THE SPEAKER: Inasmuch as these are amendments to the Constitution, they will have to be laid over until the 1940 meeting for action. You may proceed.

X-4. BY-LAWS CHANGE RE: MEMBERSHIP (Chapter I)

DR. DUTCHESS: It was pointed out that we have never had any mechanism for the transfer of membership from one County Society to another, and it was suggested that some provision be made for this. For that reason, we propose the following amendment to the By-Laws of the Michigan State Medical Society: Chapter 1, add a new Section Six as follows:

"Section 6. Transfer of membership from one component County Society to another shall be effected in the following manner:

"The member who wishes such transfer shall make application to the component Society which he wishes to join, stating his reason for desiring a transfer of membership, which must include the fact that either his residence or office location is in the jurisdictional territory of that Society, and tendering payment of dues for the remainder of the current year, calculated to the nearest quarter.

"The Secretary of the Society to which application is made shall request certification of standing from the component Society in which membership is then held. Upon receiving such request, the Secretary of the latter Society shall supply certification of good standing, provided the following requirements have been met:

"1. All State and County dues shall have been paid for the calendar year previous to the year in which application for transfer was made.

"2. The full State dues shall have been paid for the year in which application for transfer was made.

"3. County Society dues shall have been paid to cover that portion of the year preceding application for transfer, the time being calculated to the nearest quarter.

"4. A member being granted a transfer shall not be under suspension or facing charges of unethical conduct.

"In case the County Society dues have been paid in full for the year, and certification of good standing is being issued, the Secretary of the component Society shall refund County Society dues represented by the unexpired portion of the year, calculated to the nearest quarter.

"Upon receipt of certification of good standing, and favorable action by the County Society to which application has been made, the transfer of membership requested shall be in effect."

THE SPEAKER: It is necessary for the amendment to be laid over until the evening session before any action can be taken.

DR. DUTCHESS: It appeared desirable to smooth out the By-Laws.

X-5. BY-LAWS CHANGE RE: ELECTION OF OFFICERS BY HOUSE OF DELEGATES (Chapter III)

In Chapter 3, Section 7, we suggest the following amendment: Amend paragraph (m) to read:

"The election of officers shall be held at the last session of the House of Delegates at the Annual Meeting. All nominations shall be made on the floor of the House. The Speaker having declared the nominations for any office closed, shall appoint tellers. In the event of having only one nominee, the candidate may be elected by a viva voce vote. Members elected to office shall take office with the induction of the incoming President."

This represents no material change but two or three minor ones.

X-6. BY-LAWS CHANGE RE: DUTIES OF OFFICERS

Chapter 4, Section 4: Amend the first paragraph to read as follows:

"The Secretary shall be an active member of the Michigan State Medical Society and shall be paid a salary to be determined by The Council. He shall be an ex-officio member of the Executive Committee of The Council without a vote. He shall be the recording officer of the House of Delegates, The Council, Scientific Assembly, and General Meeting," et cetera.

The only change here is the deletion of the limitation concerning the salary which appears in the present By-Laws.

THE SPEAKER: Despite the fact that Dr. Dutchess brought in some new amendments to the Constitution which more or less cover the amendment which was laid over from last year, we still have to vote on the amendment which was laid over from last year.

Is there any further discussion on it? I will have Dr. Foster read it again.

IX-1. PROPOSED AMENDMENT TO CONSTITUTION—RE: MEMBERSHIP

(Offered in 1938)

DR. FOSTER: Referred to the 1939 Session of the House of Delegates: Proposed amendment to the

Constitution of the Michigan State Medical Society, Article 3, Section 1, by adding the following sentence:

"Membership in the County Medical Society on a basis not including membership in the Michigan State Medical Society is not recognized."

THE SPEAKER: Will somebody please make a motion to take this matter from the table.

DR. J. M. ROBB: I so move.

The motion was seconded by Dr. E. A. Oakes and the question put and carried.

Is there any discussion on this Constitutional amendment which has been taken off the table.

DR. ROBB: I know that when Dr. Dutchess and Dr. Spalding vote against this, there is a reason for it, and I would like to know what the reason is. They have studied this more than we have and I would like to have their interpretation of why they didn't want it taken off the table.

DR. E. D. SPALDING: The point is that Dr. Dutchess and I feel that this is adequately taken care of in the new amendments that have been proposed today in a much better way than in the one that was held over, and believe therefore that what has been proposed today should be substituted for the other. They both accomplish the same thing. Because of that, I move that this particular amendment be indefinitely postponed to get it off the books.

The motion was seconded by Dr. Dutchess.

THE SPEAKER: Is there any discussion on that motion?

I might discuss it myself. We get this clarification a year earlier by adopting this change today instead of waiting for next year.

DR. DUTCHESS: As a matter of fact, so far as active membership is concerned, it is adequately covered in the present Constitution, and if any County Society is attempting to maintain an illegal membership it would seem a simple matter for the Council to speak to them about it.

THE SPEAKER: We will go ahead and vote on the motion to permanently table this.

DR. URMSTON: I think there should be more discussion on this proposition.

THE SPEAKER: Is there anybody who wants to discuss it?

DR. T. K. GRUBER: May I ask what the motion is?

THE SPEAKER: The motion was to postpone indefinitely, which is debatable.

DR. SPALDING: It is just a parliamentary procedure for getting this out of the proceedings.

THE SPEAKER: Is there anybody who cares to discuss this motion permanently postponing action on the amendment laid over from last year?

The question was put and the motion carried.

THE SPEAKER: Are there any more amendments to the By-Laws or Constitution?

X-7. PROPOSED AMENDMENT TO CONSTITUTION—RE: MEMBERSHIP (INTERNE)

DR. KEYPORT: I would like to offer the following proposed amendment to the Constitution of the Society:

Amend the Michigan State Medical Society Constitution, Article 3, Section 1, line 2, after the first word "members" by inserting the words "junior members."

Amend the Michigan State Medical Society Constitution, Article 3, after Section 2, by inserting a new section to be known as Section 3, to read as follows:

"Junior Members—Physicians who are Internes (or Residents) in recognized hospitals of Michigan and who hold the degree of Doctor of Medicine, or who upon completion of their internship will be awarded such degree, issued to them by an institution of learning accredited by the American Medical Association are eligible for Junior Membership. They shall be entitled to receive the publication of the Society at such rates as The Council may, from time to time, determine. They shall not have the right to vote or hold office. With the approval of The Council, such a Junior Member, who shall have been awarded the degree of Doctor of Medicine, may be continued as a Junior Member for a reasonable period after completion of his hospital work, to permit him sufficient time to comply with the eligibility requirements of his county society."

Amend the Michigan State Medical Society Constitution, Article 3, by renumbering old Sections 3, 4, 5 and 6 to read 4, 5, 6 and 7, respectively.

THE SPEAKER: Are there any more amendments?

X-8 and 9. PROPOSED BY-LAWS CHANGES RE: STANDING COMMITTEES

DR. C. F. DeVRIES: I have some amendments for the By-Laws.

Amend Chapter 6, Section 2, by deleting the first paragraph and inserting in lieu thereof the following paragraph:

"The Committee on Legislation shall consist of a chairman, the President-Elect of the State Medical Society and the Chairman of The Council of the State Medical Society and members to be appointed by the President with the approval of The Council."

Amend Chapter 6, Section 5, by deleting the whole section and inserting in lieu thereof the following:

"The President shall appoint the members who shall constitute the Society's representatives upon the state committee known as the Joint Committee on Health Education."

Amend Chapter 6, by deleting the entire Section 6.

Amend Chapter 6 by deleting old Section 7, and inserting in lieu thereof the following:

"Section 7. Committee on Preventive Medicine shall consist of the Chairmen of the following Committees:

Committee on Cancer
Committee on Maternal Health
Committee on Syphilis Control
Committee on Tuberculosis Control
Committee on Occupational Diseases and Industrial Hygiene
Committee on Mental Hygiene
Committee on Child Welfare
Committee on Heart and Degenerative Diseases
Committee on Radio
Committee on Postgraduate Medical Education
and

the Chairman of Representatives to the Joint Committee on Health Education, the State Health Commissioner; also the chairmen of such other committees as may, from time to time, be appointed to study and develop programs dealing with specific diseases.

"The Chairman of the Preventive Medicine Committee shall be appointed by the President, together with the members of all special committees, with the consent of The Council.

"The duty of this committee shall be to collect, analyze and distribute information on preventive medicine, and to advise medical and other groups or individuals concerning problems on preventive medicine and public health."

Amend Chapter 6, Section 8, by deleting the first paragraph and inserting in lieu thereof the following:

"The Committee on Postgraduate Medical Education shall be appointed by the President with the consent of The Council."

Amend Chapter 6, Section 9, in line 2, by deleting the words, "consist of nine members," and insert in lieu thereof the word "be" so that the first sentence reads as follows:

"The Committee on Public Relations shall be appointed by the President with the advice of The Council."

Amend Chapter 6, Section 10, in the first line after the word "shall" by deleting the words "consist of five members" and inserting in lieu thereof the word "be," so that the first sentence reads as follows:

"The Committee on Ethics shall be appointed by the President with the advice of The Council."

Amend Chapter 6 of the By-Laws by renumbering Sections 7, 8, 9 and 10 to 6, 7, 8 and 9, respectively.

THE SPEAKER: These amendments to the By-Laws will be referred to the Reference Committee on Resolutions.

DR. O. D. STRYKER:

Amendment to the By-laws, Chapter 6, Section 1: Delete in item (c) the word "Public" so the item reads "(c) Joint Committee on Health Education."

Delete the words "Committee on Cancer" under item (d) and insert in lieu thereof the words "Medico-Legal Committee."

Amend Chapter 6 of the By-Laws of the Michigan State Medical Society by deleting the entire Section 4, and inserting in lieu thereof a new Section 4 to read as follows:

"The Medical Legal Committee shall consist of five members appointed by the president with the consent of The Council.

"The Committee shall direct and cooperate with the Medical Legal Counsellors of all the county societies in advising members as to their rights and duties in the practice of their profession.

"They shall furnish upon application by any official Medical Legal Counsellor of a county society or a Councilor information and advice pertaining to the rights and duties of physicians in the practice of their profession."

THE SPEAKER: It seems that in these proposed amendments to the Constitution that those offered by Dr. Dutchess and Dr. Keyport might conflict, so I am going to refer these amendments to the Reference Committee to iron out. I am going to enlarge the Reference Committee on Constitution and By-laws by adding Dr. Keyport, Dr. Spalding and Dr. Dutchess.

Are there any further amendments to the Constitution and By-Laws?

Is there anything else to come up under the head of New Business? If not, we will go on with the reports of the Reference Committees.

Dr. Catherwood's place is being taken by Dr. Cooksey.

VIII. Reports of Reference Committees

VIII-1. ON OFFICERS' REPORTS (I, II, III)

Dr. W. B. Cooksey presented the prepared Report of the Committee on Officers Reports. The Committee on Officers Reports finds the report of the Retiring President, Dr. Luce, a fine summary of the work done during the past year. The specific recommendations made by the President which merit further consideration were:

First, the appointment of a Committee by The Council to stimulate interest in and arrange for scientific exhibits. Your Committee wholeheartedly endorses this proposal and recommends that such steps be taken.

Second, that a fund of money be established for the aid of the widows and orphans of deceased members of the Michigan State Medical Society. Your Committee recommends that a detailed study be made by The Council as to the needs for this fund, so that further appropriate action may be taken.

Third, that this House re-affirm its support of the National Organization and that a communication be forwarded to Headquarters stating in no uncertain terms its adherence to the principles and precepts established by the House of Delegates of the American Medical Association.

Your Committee heartily endorses this recommendation.

The Committee on Officers Reports has also reviewed the splendid address of the President-elect, Dr. Corbus. The specific recommendation made by Dr. Corbus that a Committee to coöperate with the two medical schools for the furtherance of a better training of internes and the formulation of as practical a curriculum for undergraduate teaching as possible, was heartily endorsed. Your Committee recommends that this matter might be properly referred to the Committee on Postgraduate Education.

The Reference Committee on Officers Reports recommends that hereafter the report of the Speaker of the House of Delegates be presented in written form so that it can be critically analyzed.

A. E. CATHERWOOD, *Chairman*
R. B. HARKNESS
L. W. DAY
W. B. COOKSEY

THE SPEAKER: Is there a motion that this Report be adopted?

DR. E. D. SPALDING: I so move.

The motion was seconded by Dr. E. A. Oakes and carried.

THE SPEAKER: Dr. Stryker!

VIII-1. ON OFFICERS' REPORTS (A.M.A. Delegates, IV)

VIII-2. ON COUNCIL REPORTS (V)

VIII-3. ON COMMITTEE REPORTS (Legislative, VI-1; Public Relations, VI-7)

Dr. O. D. Stryker presented the prepared Report of the Reference Committee on Reports of The Council:

This Committee realizes the amount of work performed by The Council during the past year and is appreciative of the strenuous efforts expended and the results obtained. The increase in membership of six per cent per year of the past four years certainly can testify to the activity of The Council and of the benefits derived by the practicing physicians in Michigan from their membership in the Michigan State Medical Society. There has been a marked improvement in the tone and general usefulness of THE JOURNAL, and we feel that much credit is due to The Council and Dr. Dempster for this. The Committee also feels that the JOURNAL is a very important adjunct in the furtherance of postgraduate teaching.

The Committee feels that the pamphlet "On the Witness Stand" has been a very effective measure in educating the public in the pernicious angles of the Wagner Bill. We recommend that The Council continue with activities of this nature.

We are deeply appreciative of the efforts expended by the Chairman and the Legislative Committee and also the Executive Secretary in their close following of legislative matters and the special efforts expended by them during the past year. We recommend that The Council give the Legislative Committee all additional assistance, as this has proven a most effective branch of our society activities.

This Committee endorses the following Recommendations made by The Council from the floor in its supplementary report at this morning's session:

1. We endorse the holding of symposia by the various county medical societies to publicize the Michigan Medical Service plan, if and in what form it is passed by the House of Delegates.

2. We also endorse each county medical society's taking immediate action for the creation of county or district Social Welfare Departments, comprised

of a doctor of medicine in charge and an advisory committee composed of a doctor of medicine, a dentist, and a pharmacist.

3. We recommend that the House of Delegates give favorable consideration to the proposed amendment to the Constitution of the Michigan State Medical Society, Article 3, Section 4, as proposed by the Wayne County Medical Society regarding associate members in lieu of junior membership for internes in the Michigan State Medical Society.

4. We heartily endorse the recommendations of The Council regarding the change in medico-legal defense and advise that they continue as they see fit in this matter.

5. We approve that the House of Delegates urge county medical societies and individual physicians to meet with United States Senators and Congressmen as recommended.

6. We recommend that the House of Delegates reaffirm its authorization of The Council to levy a capital assessment not to exceed a sum of \$5.00.

7. We recommend that the By-Laws be changed so that the various committees mentioned in the report of this morning's session be grouped under the Preventive Medicine Committee, the Chairman being appointed by the President.

8. We recommend that no more Sections be created in the Society, but that the work of special groups be done by the more efficient and less cumbersome method of creating additional committees of the Michigan State Medical Society. All allied medical groups should be encouraged to hold their annual sessions at the same place and co-incident with the Annual Meeting of the M.S.M.S., either directly before or after the scientific program of the M.S.M.S. This closer association will result in better coördination of medical work and service in all its branches.

DR. STRYKER: I move the acceptance and adoption of this report, and of the Reports of the Legislative Committee, of the Public Relations Committee, and of the Delegates to the American Medical Association.

The motion was seconded by Dr. A. V. Wenger (Kent), and carried.

THE SPEAKER: We shall have the Reference Reports on the Annual Reports of Committees.

VIII-3. ON COMMITTEE REPORTS (Health Education, VI-2)

DR. A. L. ARNOLD, JR.: The Reference Committee examined the Report of the Representatives to the Joint Committee on Health Education. We move that this Report be accepted as published in the Handbook, and commend the Committee for the excellent work it has done during the past year.

I move its adoption.

The motion was seconded by Dr. Biddle and carried.

DR. J. M. ROBB: In relation to the program of health education, I would like to bring before this membership the fact that when it was my duty to appear at Washington before the sub-committee on Labor and Education, I had the privilege of using much of Dr. Bruce's effort in the development of the health education program and what Dr. Biddle and other members have done. The fact that we had for eighteen years a health education program in the State of Michigan and that for twelve years the postgraduate medical education of the State had gone on to the point to which it had over 2,300 men taking it this last year was sufficient evidence to that Committee so that there were practically no questions asked of me after my presentation. So

that sometimes these efforts seem to be futile, but at the time of stress when we need to defend ourselves against people who don't understand that medical men are really striving for the best, it does come in as a very worthy help.

THE SPEAKER: Next is the Reference Report on Cancer Committee Report.

VIII-3. ON COMMITTEE REPORTS (Cancer, VI-4)

DR. E. A. OAKES: The Committee was asked to report on the Report of the Cancer Committee. This Committee moves that this Report as printed in the Handbook be accepted by the House of Delegates and adopted.

The motion was seconded by Dr. William J. Stapleton and carried.

VIII-3.- ON COMMITTEE REPORTS (Postgraduate, VI-6)

DR. OAKES: Second is the Annual Report of the Advisory Committee on Postgraduate Medical Education. I think it was very evident to everybody this morning at the House of Delegates meeting, in looking this over, that we have probably one of the most outstanding postgraduate programs in any State. The Committee is commending very highly the work that this Committee has done. We move the acceptance of this Report as printed in the Handbook.

The motion was seconded by Dr. W. R. Torger-son and carried.

VIII-3. ON COMMITTEE REPORTS (Ethics, VI-8)

DR. OAKES: Re the Report of the Ethics Committee, our Committee moves the adoption of the report as printed in the Handbook and the Supplementary Report offered to this Committee by the Chairman.

The motion was seconded by Dr. C. F. Snapp and carried.

THE SPEAKER: Dr. Woodworth will render the Reference Report on the Preventive Medicine Committee Report.

VIII-3. ON COMMITTEE REPORTS (Preventive Medicine, VI-5)

DR. W. P. Woodworth presented the prepared Report of the Reference Committee on Resolutions:

Under the title of the Annual Report of Preventive Medicine Committee, Item 3, regarding Medical Director, it is felt that the request for funds for the employment of a full-time medical health director is not necessary because of the appointment of Dr. Wheeler by the State Department of Health as liaison man in pediatrics under Dr. Smith and representing the Michigan State Medical Society.

Under Item 5, Football Injuries, Section 5B regarding x-ray of chest as a routine measure, it is recommended that this procedure be limited to a flat film.

Section 5C regarding the presence of a doctor of medicine or senior medical student, it is felt that this should read simply a doctor of medicine, because of the impracticability of a senior student being available.

Under Item 7 regarding the vision and hearing projects, it was felt that this matter should be approached with considerable caution and it is recommended that the sub-committee for further study be continued.

It is recommended that the Commission on Infantile Paralysis be commended for their valuable work, especially in the recent epidemic.

Regarding the report of the advisory Committee

on Syphilis, it is felt by This Committee that the recommendation that venereal diseases be included in the medical service plan be given serious consideration by the House of Delegates.

DR. WOODWORTH: I move that these recommendations be adopted.

The motion was seconded by several.

DR. RALPH H. PINO: I would like to discuss that just a little. I do not mean in any sense to embarrass The Council in whose hands that matter of the hearing and vision tests has been thrown. They may arrive at the conclusion just as we arrived at the conclusion in Detroit that to give that little leeway for the sake of harmony might be a good thing. They may find that they will have to go through with that, and they may find obvious reasons why they should.

I only wanted to call attention to the extravagant use of money for things that are not emergencies when there are emergencies that should have money to carry them forward. I hope that is understood. They may find it necessary to go through with that WPA project and we want to stand right by them if, in their judgment, it needs to be carried out.

DR. E. D. SPALDING: I would like to know whether the reason for this effort is to improve the health of the children of the schools or to spend money for WPA. If it is the latter, I am against it.

THE SPEAKER: The Chair's interpretation of it is that it is to remove 1,300 people from the relief rolls.

DR. SPAULDING: And put them on the necks of the rest of us.

DR. L. O. GEIB: I want to ask your tolerance to discuss that. This hearing and vision project was a WPA project and they asked for a hearing before the Preventive Medicine Committee. The head representatives attended that meeting and it was very fairly discussed. As Dr. Spaulding stated, it seemed to be largely a matter of spending WPA money. At least that seemed to be the feeling of the Preventive Medicine Committee. Therefore, the sub-committee was appointed to study the project further. We didn't want to railroad the thing without giving them a fair hearing.

So, with that thought in mind, a committee, I think, of about seven was appointed to study the matter and give it more serious consideration. Since then, I understand that the affair has been changed to make a survey of Wayne County rather than the State.

THE SPEAKER: Is there any further discussion?

DR. WM. P. WOODWORTH: With regard to that last item, I don't know whether this is the proper time to discuss it, but there should be some considerable discussion in regard to the inclusion of venereal disease in this service plan because there is a possibility that it might seriously disarrange some of the plans.

This will probably come up for further consideration when Dr. Umphrey brings in his report on the Michigan Medical Service. Therefore, if it goes through as a recommendation of your particular committee, it will still have to be taken up by Dr. Umphrey's committee.

DR. LOREN W. SHAFFER: I simply wanted to say that I think it would be a nice gesture for the medical profession itself to recommend the inclusion of venereal diseases in such a treatment program. If the Commissioner of Insurance throws it out, the responsibility then is out of our hands, and I think the medical profession can make that statement, that we desire to include these cases but were told it was an impractical measure.

DR. J. M. ROBB: I feel that way definitely, too. We have to keep an ace in the hole if we can.

DR. P. R. URMSTON: The Council will accept such a proposition in that manner as a suggestion to The Council for further consideration.

THE SPEAKER: Is there any further discussion?

DR. G. L. McCLELLAN: I would like to ask why tuberculosis was excluded from this report. It seems to me that many cases of tuberculosis are not going to require any longer continued care than cases of undulant fever.

THE SPEAKER: I can't answer your question.

Are there any further questions?

The question was put and the motion carried.

XI-1. RESOLUTION: SPECIAL MEMBERSHIPS

DR. A. E. STICKLEY: Ottawa County presents the name of Milan Coburn, M.D., of Coopersville to be granted retired membership. Dr. Coburn has practiced medicine forty-six years and has been a member of the Michigan State Medical Society for thirty-two years.

THE SPEAKER: This will be referred to the proper Reference Committee for action.

DR. R. L. WADE: The delegate from Branch County wishes to recommend the name of Dr. A. G. Holbrook as a member Emeritus to the Michigan Medical Society. It is my understanding that Dr. Holbrook has been in active practice for over fifty years and has maintained his membership in a medical society for over twenty-five years.

THE SPEAKER: This will be referred to the proper Reference Committee.

DR. J. M. ROBB: Relative to the matter of the Emeritus members, I believe that since it is necessary for the recommendations on the change of the Constitution to be held over for a year some discussion should be made from the floor relative to what will necessarily have to be the qualifications for Emeritus membership. If the exigencies of war or sickness or some of those things remove from them the continuous period of membership, then that thing should be properly adjusted at this time and not at a later date. That is all I wanted to say now.

THE SPEAKER: Inasmuch as we have to wait for this large Reference Committee to get through with their work and come back, we will take a recess for a few minutes.

Recess

THE SPEAKER: The House of Delegates will now come to order. The session will be resumed.

We will now hear from Dr. Umphrey.

VIII-2. COUNCIL REPORTS RE: MICHIGAN MEDICAL SERVICE (V)

Dr. C. E. Umphrey presented his prepared Report of Reference Committee on Standing Committees re "Michigan Medical Service":

Your Reference Committee wishes to commend Doctor Pino and the Committee on the Distribution of Medical Care for the tremendous amount of work they did in gathering the information necessary to complete our present Michigan Medical Service plan. The Committee is further aware of the great number of meetings and vast amount of work done by The Council and Executive Committee. We, therefore, wish to express our appreciation and thanks on behalf of the Michigan State Medical Society Delegates for the valiant service rendered.

The first item of discussion which came before the Committee was whether or not such a plan is

needed. The membership of the Committee was in accord that some plan must be completed at this time.

In view of the discussions, both formal and informal, which preceded the Committee meeting, we wish to invite your attention to the following suggestions which are here listed for The Council in its efforts to complete as nearly a perfect and workable plan as possible.

Item 1, under "income limit" page 2—Although it was thought by the Committee that the income limit of \$2,000 is too high, no feasible suggestion could be offered in view of the requirements of the Insurance Department.

Item 1, page 4—The distribution of subscription rates was considered and it was hoped that a more equitable schedule could be arranged for a single subscriber.

Item 1, page 3—That further consideration be given to that clause which requires the subscriber to pay for the first five dollars of service he receives.

Item 1, page 3—Whereas no data are yet available on the items of mental, nervous, cancer and venereal diseases, it is respectfully suggested that diligent consideration be given the actuarial facts surrounding this group during the coming year with the hope of inclusion of these conditions at some future date.

Item 2, Article X, Section 3, page 7—The Committee expressed the hope that The Council will make further endeavor to clarify the implied obligation of participating physicians and that a clarifying clause be inserted in Item 7A as soon as legal opinion can be obtained.

Item 3—no comments.

Item 4, page 2, Part II, in the paragraph reading "Medical services in the following amounts" delete the word "in" and insert in lieu thereof the words "up to."

Item 4A—under personal history, we suggest an added Item no. 12 as follows: "My personal income is not in excess of \$2,000 per year."

Item 4B—under personal history, we suggest an additional Item no. 12 as follows: "The total family income of those participating under this certificate is not in excess of \$2,500 per year."

Item 4C—It was suggested that the effective date of the certificate be placed on the subscription card.

Item 5, page 2, part II, the same correction is here noted as has been reported in Item 4.

Item 6, page 2, following the paragraph "These instructions and fees may be changed by the Medical Advisory Committee when warranted by the particular circumstances surrounding the services for a patient." At this point, add "It is to be noted that these fees are not commensurate with the usual charges made for the services herein listed." In addition, discrepancies in the fee schedule were noted and it is hoped that over a period these errors may be corrected. In accordance with a study made and cited before the Committee by Dr. Scott of New Jersey, they have decided to eliminate the fee schedule excepting inasmuch as it covers office, house and hospital calls. It is further suggested in the New Jersey plan that special services be compensated for according to the prevailing charges as are locally in vogue and as are reviewed and approved by the Medical Advisory Committee of that locality.

The rest of the items were reviewed with no controversies arising.

Mr. Speaker, I move that The Council be empowered to complete the present plan entitled "Michigan Medical Service" and that The Council also be empowered to put this plan into operation.

Mr. Speaker, I move the acceptance and adoption of this Report.

The motion was seconded by several.

THE SPEAKER: Is there any discussion on this motion or this Report?

PRESIDENT LUCE: Mr. Speaker, what does it mean if we adopt this?

THE SPEAKER: It means we don't throw it out. Dr. Umphrey plans to make a second motion after this one is over with.

DELEGATE: What is the nature of this second motion?

THE SPEAKER: We can make but one motion at a time. Is there any discussion on the motion?

DR. WM. S. REVENO: Could Dr. Umphrey elaborate a little more for us with regard to the suggestion made by Dr. Scott of New Jersey? Can we include a fee schedule here that is not as complete as the one contemplated and still meet the requirements as set forth by the Insurance Commissioner?

DR. UMPHREY: I don't know whether we can get by the requirements of the Insurance Commissioner or not. That is going to be a problem that will face The Council. However, we offer those suggestions. The Committee did not feel that anything should be attempted for a complete fee schedule. In fact, they were very much against it. They even feel that this fee schedule, although it may be representative of a small number of fees, is probably even more than we want, and that is why I cited the action that they have taken in New Jersey as stated by Dr. Scott.

Would you care to hear any further discussion on what they have done out there from Dr. Scott?

DR. REVENO: I think it would be a good idea perhaps to go into that phase of the question a little. If I sense the feeling of most of the men who have been interested in this problem, I think most of us have been reluctant to harness the profession with a fixed fee schedule that will very likely become public property in a comparatively short period of time, and if there were some way that could be devised whereby we could get around that particular difficulty, I am quite certain that much of our reluctance in entering into this sort of plan could be eliminated.

DR. UMPHREY: Dr. Scott, would you care to tell the membership what you have done in New Jersey?

DR. SCOTT: Mr. Chairman and Gentlemen: This point which was brought up in the Reference Committee, of course, is a very controversial thing everywhere. Let me limit my remarks simply to the fee schedule. We have worked for ten months in New Jersey on a fee schedule. It came up at every committee meeting and we looked into the studies made by other state societies which have adopted fee schedules, particularly the Toledo Plan, where they adopted a fee schedule after consulting with every group of practitioners in every locality in that state and they finally worked out what they hope will be a very complete fee schedule adaptable at different rates at different parts of the state and satisfying all groups in different parts of the state. It didn't appeal to us. It was a little too complicated. But when we try to make it simple, we can't satisfy the groups in northern and southern New Jersey and neither can we satisfy the groups in any one locality. We had their experience to go by. We have the Emergency Relief Administration which is very successful in New Jersey. There, all fees were reviewed by a medical advisory board each month. It was a tremendous task for this committee. We believe that by stating what the office call will be, what the house call will be, and what the hospital call will be, we shall have included 90 or more per

cent of the total bills, the contents of all the bills. Special services, operative services, will constitute not more than 10 per cent, probably much less than that, so it will leave that percentage of the bills to be approved by the Medical Advisory Committee of these county branches, which is part of our plan. That wouldn't be a tremendous task. They will approve of any fee which is commensurate with the usual fee for that class of persons in that community, and we will pay upon the basis of their approval. Of course, if any man wants to appear before this committee, if it is a special case and they have cut him down and he believes he is entitled to more, they will hear him on that, but we hope and we believe that the average physician in a County Society will respect the opinion of a group of men in whom he has trust and faith to give an honest opinion.

It was satisfactory under ERA, and it is our present basis for a fee schedule until experience tables tell us what a proper fee schedule for that class of people will be, possibly in a year or two. We have to depend upon the medical profession for that amount of coöperation or our plan is a failure. We don't know what our receipts will be. We don't know what our expenditures will be. The difference, the buffer between those two, must be absorbed by the medical profession, and if there is a loss, that is their contribution to this experiment. I would be glad to try to answer any questions.

DR. A. E. STICKLEY: Is your plan the same as this?

DR. SCOTT: We could go into a long discussion on that. Of course, it is a non-profit voluntary health plan. Our organization is a little different than yours. The thing which impressed me most—that is, the greatest difference—is our organization. We try to separate our corporation from our plan in our own thoughts and in the thoughts of the physicians of the State. They are the plan. The corporation consists of nothing but our Board of Trustees of seven members, who are appointed by the Trustees of the Medical Society. That is the corporation. The function of that corporation is purely administrative. The function of the plan is the distribution of medical care. The corporation has nothing to do with anything except finances. Of course, that is the same in your plan, but we try to make it more explicit so that there is no connection between the corporation and the plan except where the corporation signs the checks. They don't care what the doctors do. They are in the plan, have no voting power in the corporation; they are not members of the corporation. You pick men in whom you have faith and in whom you have trust and let them put this thing over. So we differ in that respect from you as an organization. It is controversial. I don't know whether yours is better or ours is better. We felt the fewer men we had to make a decision, the more apt we were to get a quicker decision. All plans are different. That is just our idea. If yours is better than ours, we can change to yours at the end of a year. There are other little differences, but the basic difference, I think, is that.

DELEGATE: This is under the control of the New Jersey Society entirely?

DR. SCOTT: It is. All five members of the Board of Trustees are appointed by the Trustees of the Medical Society. We have two lay members who are appointed by the Trustees of the Medical Society. So it really reverts back to the House of Delegates of the Medical Society in the final analysis.

DELEGATE: Are your rates the same?

DR. SCOTT: No, our charges are a little different. Do you mean our subscription charges?

DELEGATE: Yes.

DR. SCOTT: They sum up for a family of four the same as yours. They are distributed a little differently. We charge \$1.50 for the subscriber, \$1.25 for the wife, and \$1.00 for the child, and it amounts to \$4.25 for a family of four. But if there are five, six or seven, it is 50 cents a month for each additional child.

DELEGATE: How long has this been in operation?

DR. SCOTT: It hasn't been in operation yet. That is the trouble with all of our plans. We were ready to go this fall. We had been told by the proper authorities that we could incorporate under an old statute governing the establishment of non-profit corporations the same as our hospital plan, which is very successful and which operated under this old statute for two years. Then they took them in under a blanket insurance and applied special legislation. Ten days ago, we received word from the Attorney General that he thought we would have to have special legislation. We hope that it will go to the Legislature for this session. That is the monkey wrench in our machinery.

THE SPEAKER: May I ask the speaker how much of this fee schedule they publicize?

DR. SCOTT: When I say we have no fee schedule, I mean this: We guarantee no fee schedule. If you can't guarantee a fee schedule, why have it? But there will be an informal skeletal fee schedule for the deliberations of the County Advisory Committee and for the Medical Director. Naturally, we are not going to pay \$250 for a laparotomy. We will make it a reasonable figure—something like yours, perhaps, \$75, or whatever in that particular community the Medical Advisory Committee considers as a just fee. They will have a guiding scale to go by but it will not be a formal fee schedule.

DR. H. F. DIBBLE: Is it necessary to have a fee schedule to fulfill the requirements of the Enabling Act?

THE SPEAKER: Last winter the delegates wanted to know how much they were going to get, and the only way you could tell was by printing a fee schedule.

MR. LAUX: I believe that the fee schedule is not required under the Enabling Act, but I think there is no disagreement between the proposal as outlined by the speaker from New Jersey and the suggested arrangement here. They are one and the same. This fee schedule which is proposed is simply to indicate to the physicians of the State the proposed level of payments that will be used as a guide by the Medical Advisory Committees in the various localities. This is not a fixed and inflexible fee schedule; it is not a mandatory payment schedule. So it has the same purpose exactly as the short schedule which Dr. Scott mentioned. Also there will be a longer schedule prepared for the use of the Medical Advisory Committee, but the prevailing charges in the community will be reported by the physician.

In the last discussion on this matter, the point was brought out and was introduced here this morning, that the Council recommended in the billing for payments that the physician indicate the items of service which he has rendered and the prevailing charges in the community for those services which are not listed in the schedule. With that information of the prevailing charges in that community and supplemented by this Schedule of Fees which will be composed of all available information on fees, the Medical Advisory Committee can then arrive at a payment of an equitable fee for the service rendered taking into consideration all the sur-

rounding circumstances. That is the procedure under which every medical service plan has contemplated operation, and is the procedure here.

THE SPEAKER: Is there any further discussion on Dr. Umphrey's motion?

DR. F. T. ANDREWS: May we have a decision from the Chair on this question: If we pass this motion, does it compel The Council to incorporate in its plan these suggestions?

THE SPEAKER: Not necessarily. It expresses the wishes of the House of Delegates to The Council, and then The Council is to be guided by these wishes. If, at the next meeting of the House of Delegates, The Council has not lived up to our wishes, then we can elect new Councilors.

DR. H. G. HUNTINGTON: I move amendment of the motion by the deletion of the word "adoption."

The motion was seconded by Dr. L. J. Hirschman.

THE SPEAKER: The motion is that we take the word "adopt" out of Dr. Umphrey's motion.

DELEGATE: How will it read?

THE SPEAKER: Dr. Umphrey, will you read it?

DR. UMPHREY: Then the motion will read: I move the acceptance of this Report.

DR. E. D. SPALDING: You may accept the Report and adopt it, and they are synonymous. If you receive it, you do not accept it. If you accept it, you adopt it. That is in Robert's Rules of Order, regardless of what the Chair rules.

THE SPEAKER: The Chair would think that the words "accept" and "receive" would be synonymous.

DR. RALPH H. PINO: I would like to ask the meaning of the Reference Committee. If you know what their meaning is, what matter to us what these words may mean? What is the meaning of the Reference Committee?

DR. UMPHREY: The meaning of the Reference Committee is that they have studied this plan and they are making suggestions to The Council as an aid in their study and a help in their completion of this plan.

DR. PINO: Let me put it this way: We do understand, do we not, that you advise The Council or you advise the Delegates that they accept this plan and put it into operation? Is that the meaning of your motion or hasn't that come yet?

DR. UMPHREY: The acceptance of this Report is the Committee's Report only. There probably will be a further motion as to what you are inquiring about.

DR. PINO: I wonder if that is understood. We believe your meaning is right, but there is a possibility of confusing the issues by these various questions and various changes. I wish we might have this clarified. Dr. Luce asked, "What is the meaning of this?" and the answer comes back, that the meaning will be stated later. I have absolute confidence in the Committee's report but confusion is already developing.

DR. P. R. URMSTON: I think the Chairman of the Council and The Council will understand the meaning now of the recommendations of the Committee in furthering the Michigan Medical Service Plan, and if the recommendations are feasible and meet the approval of the Insurance Department or the Attorney General's Department we shall be very glad to make those changes. That is the recommendation from the Committee and I think we fully understand that.

THE SPEAKER: Dr. Spalding was right. "Accept" and "adopt" mean the same thing according to Robert's Rules of Order.

DR. P. L. LEDWIDGE: I see no reason why we should quibble. We are not voting on adopting the plan; we are voting on this report.

THE SPEAKER: If Dr. Huntington will withdraw his amendment, and Dr. Umphrey will withdraw his motion, then Dr. Umphrey can bring in a new motion properly worded.

DR. H. G. HUNTINGTON: I will agree to the withdrawal of my amendment.

THE SPEAKER: The withdrawal is received. (Laughter)

DR. UMPHREY: I withdraw my motion.

THE SPEAKER: Dr. Umphrey agrees to withdraw his motion, and he will bring in a new motion.

DR. UMPHREY: Mr. Speaker, I move that the Report of the Committee be received.

The motion was seconded by Dr. A. E. Stickley.

THE SPEAKER: Is there any discussion?

DR. RALPH H. PINO: I want to ask this other question. Are we voting at this time on putting this Plan into operation?

THE SPEAKER: We are merely voting on receiving this Committee's Report.

DR. PINO: That is what I thought, but there are those who do not understand what we are voting on.

DR. W. B. COOKSEY: Mr. Chairman, I would like to speak in defense of a portion of the Committee's Report which, it seems to me, is pertinent to our considerations at this point and not at a later point particularly. That is the recommendation that this Committee has made concerning the fee schedule, which, after all, is probably one of the most difficult parts of this plan if not the most difficult. The plan which is recommended by this Report on which we are to vote is that the previous fee schedule presented to us be altered and simplified to specify only items which have been enumerated. This Report appeals to me as being a very fair way to handle the problem. Therefore, I would speak in its behalf. Our objective in this problem of creating a medical service insurance is that, first of all, we want eventually to solve the problem of the low income group. We do not reach that extremely low income group, which we call the borderline case, with this plan as it now exists. Eventually, however, we would hope to evolve such a plan. At the same time that we would desire to cover this very low or borderline group of incomes, we would greatly like to keep the monthly cost to the insured at a very low level, which means that there are certain balancing factors which we must take into consideration. A further balancing problem is that we must prevent this fee schedule from interfering with the prerogative of private practice, and this plan which our Committee has presented it seems to me is admirable in that direction. It specifies nothing that could in any way interfere with private practice if the approach as far as the public is concerned to this problem is properly handled so that they understand this is a special setup which we are trying to create so that we may eventually reach this borderline group, which is so important if we are to meet the criticism which is leveled against us. Furthermore, we must take into account as a balancing consideration at this time the fact that if we are in a position to offer this service as a Medical Society, we are placed in a strategic position that is far better than if we do not, that is far better than having a hands-off policy, as far as any protection beyond that of State or Federal interference is concerned.

I am familiar with a plan which I am sure some here are also very familiar with. I refer to the Baker Memorial Insurance of the Massachusetts General Hospital. I have several very good friends there and I am constantly trying to get information from them. They are practicing physicians in Boston and when I see them I always ask them, "How do

you like the Baker Memorial Insurance? Do you find that it is a contribution to you in your private practice?" I have yet to find any of my friends who are participating in that plan who do not like it. I don't say I know all about that plan. I am citing only a personal experience.

The Baker Memorial Insurance is a plan which provides, for this very low-income group, medical service at a cost this low-income group can afford to pay. The crux of the plan, which is applicable to what we are now considering, this fee schedule, is that no patient who enters the Baker Memorial Hospital for care, regardless of how much medical service he receives, is ever charged in excess of \$150 for his medical service, which means that he may have, if needed, consultation, surgery, and whatnot for that one price. I wonder if in considering this problem of the fee schedule as our Committee has presented it to us it wouldn't be decidedly worth while to also consider if this problem of a medical fee might get out of bounds, might raise our monthly rates to the indigent and therefore interfere greatly with the ones that we are anxious to touch, namely, the borderline patient whose income is \$1,000 a year or less. I wonder if that might eventually enable us to truly reach that group.

I would, therefore, suggest that when this Report goes to The Council that the problem be considered of setting such a maximum for any one given illness without then attempting to specify any fee for an appendectomy or anything else and leave that, as the Committee has recommended, to the practice of the given community.

THE SPEAKER: Is there any further discussion on the motion to receive this Report?

The question was put and the motion carried.

DR. UMPHREY: Mr. Speaker, I move that The Council be empowered to complete the present plan entitled, "Michigan Medical Service," and that The Council also be empowered to put this plan into operation.

The motion was seconded by Dr. A. P. Biddle.

THE SPEAKER: Is there any discussion?

The question was called for.

THE SPEAKER: We are going to vote and if you are not satisfied, forever hold your peace.

The question was put and the motion carried. (Applause)

VIII-3. ON STANDING COMMITTEES

(Distribution of Medical Care, VI-3)

DR. UMPHREY: I move that the report of Dr. Pino's Committee on Distribution of Medical Care be adopted.

Motion was seconded by several and carried.

THE SPEAKER: I want to take this opportunity to thank Dr. Umphrey and his Committee for the tremendous amount of work they have done. They went over every word written about this Plan and the Outline.

A motion to recess until eight o'clock is in order.

On motion regularly made, seconded, and carried, the meeting recessed at six o'clock.

Recess

Monday Evening Session

September 18, 1939

The meeting convened at eight-thirty o'clock, with the Speaker, Dr. Philip A. Riley, presiding.

THE SPEAKER: Will the session please come to

JOUR. M.S.M.S.

order? Dr. Urmston, is there any supplementary report from The Council?

DR. P. R. URMSTON: Mr. Speaker, there is no supplementary report as the House of Delegates did not refer anything to The Council today for opinion. But I want to take this opportunity to thank Dr. Umphrey and his Committee and the Delegates for the efficient way they handled Michigan Medical Service today, which shows that you still have confidence in the Officers of the Michigan State Medical Society, and we appreciate it very much. Thank you!

THE SPEAKER: Thank you, Dr. Urmston.

VIII-3. ON COMMITTEE REPORTS (Radio VII-4; Woman's Auxiliary, VII-3; Liaison Committee with Hospital Association, VII-5; Liaison Committee with State Bar, VII-6)

Also

VIII-4. ON RESOLUTIONS (Radio Advertising, XI-3)

DR. R. M. MCKEAN: Your Reference Committee on Resolutions met and considered the reports of the Radio Committee and of the Advisory Committee to the Woman's Auxiliary, the Liaison Committee with the Hospital Association, and the Liaison Committee with the State Bar of Michigan. The Committee approves in toto the reports of these committees and in addition recommends the adoption of the special Resolution of the Radio Committee.

Dr. Penberthy read this report this afternoon. The adoption of this resolution is recommended by your Reference Committee. I move the acceptance of the Report of the Radio Committee. This does not include the resolution.

The motion was seconded by Dr. G. H. Southwick and carried.

DR. MCKEAN: I move the acceptance of the Report in the Handbook of the Advisory Committee to the Woman's Auxiliary.

The motion was seconded by Dr. H. W. Wiley and carried.

DR. MCKEAN: I move the acceptance of the Report of the Liaison Committee with the Michigan Hospital Association.

The motion was seconded by Dr. Wm. J. Stapleton and carried.

DR. MCKEAN: I move the acceptance of the Report on the Liaison Committee with the State Bar of Michigan.

The motion was seconded by Dr. John A. Wesinger and carried.

DR. MCKEAN: And we have recommended in addition the passage of the resolution which was submitted by the Radio Committee in regard to a conference between the broadcasting companies and the medical profession, and I move the adoption of that resolution.

The motion was seconded by Dr. A. V. Wenger and carried.

THE SPEAKER: Dr. Arnold!

VIII-3. ON COMMITTEE REPORTS (Mental Hygiene, VII-2; Maternal Health, VII-1; Nurses' Training Schools, VII-9; Membership, VII-7)

DR. A. L. ARNOLD, JR.: Report of Reference Committee on Special Committees.

We move that the Report of the Mental Hygiene Committee, as published in the Handbook, be ac-

cepted, and the Committee commended for its excellent work during the past year.

The motion was seconded by Dr. Wm. J. Stapleton and carried.

DR. ARNOLD: We move that the Report of the Maternal Health Committee, as published in the Handbook, be accepted, and the Committee commended for its excellent work during the past year.

The motion was seconded by Dr. H. W. Wiley and carried.

DR. ARNOLD: Report of the Advisory Committee on Nurses' Training Schools: In view of the increasing need for nurses in small hospitals and the fact that so little progress was made by the Committee in the past year, we feel that the work should be continued for another year. I so move.

The motion was seconded by Dr. H. W. Wiley. The question was put and the motion carried.

DR. ARNOLD: We move the acceptance of the Report of the Membership Committee as published in the Handbook.

The motion was seconded by Dr. F. E. Reeder and carried.

THE SPEAKER: Dr. Arnold, could you tell us anything about the Nurses' Aid which is being developed in some of our smaller hospitals in the State?

DR. ARNOLD: We have the Nurses' Aid in our hospital. They are young girls, usually high school girls, who do some of the work that nurses usually do but they don't have any of the care of the patients. They simply bring water and food and take away things, and so forth.

THE SPEAKER: You know, this was brought up a few years ago by Dr. Arnold in the House of Delegates. The Nurses Association had made the rules so strict that certain smaller hospitals throughout the State found it very difficult to keep their doors open. They couldn't afford to hire graduate nurses, and if they could, they couldn't find them.

In the meantime, a new type of individual, called the Nurses' Aid, has been developed in two or three hospitals around the state and it seems to answer the problem. I am going to ask Dr. Foster to explain it to you.

DR. FOSTER: In several parts of the State, this idea of Trained Attendants (as they are called) was developed. In these small communities where these trained attendants are getting a year's training and so many hours of class-room work and actual bedside nursing, they are rendering a necessary and satisfactory type of service, and are much in demand because their prices are reasonable and most of them are girls who have had an ambition to be a nurse and who, for various reasons, have found it impossible and have gone into this activity with a serious attitude. Even people with means are demanding two trained attendants—I think they get \$4 a day instead of \$7.

DR. E. A. OAKES: That is correct, Dr. Foster.

THE SPEAKER: There is still some work to be done on this Nurses Training.

DR. W. F. MERTAUGH: This affects our hospital very much. In fact, we have such a hard time getting nurses that a good portion of our nurses have to be taken from across the river. Our aids do not fill the bill there. There isn't much of a program of preparation for these girls. We tried getting nurses from Detroit, Grand Rapids, and Chicago, but a lot of the girls coming from the larger cities are not satisfied with a town of our size. They stay a short time and then they depart. So we are right up against it. We are very much in favor of making some change if possible.

THE SPEAKER: Dr. Stryker.

VIII-4. ON RESOLUTIONS (Neutrality, XI-4)

DR. O. D. STRYKER: Mr. Speaker, your Committee is in accord with the Resolution introduced by Dr. Ralph Pino concerning United States neutrality and recommends that the resolution be referred to The Council for proper action.

I move the acceptance and adoption of that Report.

The motion was seconded by Dr. A. V. Wenger and carried.

VIII-4. ON RESOLUTIONS (Special Memberships, XI-1)

DR. STRYKER: Recommendations for Membership Emeritus for the following members are approved: Drs. W. H. Riley, John Harvey Kellogg, C. C. Landon of Battle Creek, Dr. George L. Cramer of Owosso, Drs. Don M. Campbell, Wm. M. Donald, Stanley G. Miner, and Rollin H. Stevens of Detroit, Dr. A. G. Holbrook of Branch County and Dr. J. B. Bradley of Eaton Rapids. For Retired Membership: Drs. Walter E. Spicer and Henry Gray Glover of Jackson; and Milan Coburn of Coopersville.

I move the acceptance and adoption of that Report.

The motion was seconded by several.

DR. STRYKER: In the case of Dr. George C. Hartford, he is already an Emeritus Member of the State Society, but he would like to be an Affiliate Fellow of the American Medical Association, and the resolution was that he be recommended to the American Medical Association for this membership.

The question was put and the motion carried.

THE SPEAKER: Is there anything to come up under the head of New Business?

We were to have an outside guest speaker today in the person of Mr. M. S. Van Giesen. He is President of the Michigan State Association of Supervisors and Superintendents of Poor. We have a telegram from him as follows:

"Had hoped until the last moment I could attend your convention today. Must express regrets. I am unable to do so. However, on behalf of our State Association and for myself personally I am expressing appreciation for all past coöperation and assuring you and your Society of our continued assistance that our mutual problems will be worked out satisfactorily to all concerned.

M. S. VAN GIESEN."

XII. Elections

XII-1. COUNCILOR OF 14TH DISTRICT

We shall proceed with the election of officers, such as Councilor of the Fourteenth District. We will appoint two Tellers: Dr. Pino and Dr. A. V. Wenger. Nominations will now be open for Councilor of the Fourteenth District. Dr. Howard H. Cummings is the incumbent.

DR. JOHN A. WESSINGER: I rise to nominate Dr. Howard H. Cummings as Councilor of the Fourteenth District to succeed himself. He has done splendid service on the Council and we feel that he should be continued.

The nomination was seconded by Dr. H. W. Wiley, Dr. R. M. McKean, Dr. Grover C. Penberthy and Dr. A. W. Chase.

DR. HARVEY HANSEN: I move that the nominations be closed.

The motion was seconded by Dr. Dean Myers.

THE SPEAKER: We shall vote on that motion.

The question was put and the motion carried.

THE SPEAKER: Dr. Cummings has been elected Councilor to succeed himself. (Applause)

DR. L. J. HIRSCHMAN: I rise to a point of order. Dr. Cummings has been nominated but not elected. I move that the Vice Speaker cast the unanimous ballot of this House for the election of Dr. Cummings as Councilor of the Fourteenth District.

The motion was seconded by several and carried.

The ballot was cast by Vice Speaker Hoffman.

THE SPEAKER: Dr. Luce just informed me that he has received the resignation of Dr. Urmston as Councilor of the Tenth District. Nominations are now in order to fill the vacancy.

DR. P. R. URMSTON: As I am only a private citizen now—

THE SPEAKER: Are you a Delegate?

DR. URMSTON: I am not a Delegate, but this is an unusual circumstance. There is no Delegate present from Alpena County. The Alternate failed to show up and he sent a telegram, which I shall read.

Dr. Urmston read the telegram.

DR. URMSTON: In a conference of the delegates held in Bay City last Wednesday, they came to a decision, and now I have this telegram from Alpena. As they cannot be here to make the nomination, and as Dr. Keyport seems to have disappeared, I am going to call on Dr. Penberthy.

XII-2. COUNCILOR OF 10TH DISTRICT

DR. GROVER C. PENBERTHY: Mr. Speaker and Delegates: I am sure it is with regret that Dr. Urmston is resigning as Councilor. We all owe a great debt to his interest and his work; as Past President of the Society, I voice myself in appreciation of his earnest endeavor to carry through the program of the State Society as outlined by the House of Delegates. He has been a faithful Councilor. To succeed him, I would like to place in nomination the name of Dr. Roy C. Perkins, who has been a member of the House of Delegates for a great many years, and who has been active in his local Society as well as in the State Society.

I take pleasure in placing before you the name of Dr. Roy C. Perkins to succeed Dr. Urmston.

The nomination was seconded by several.

DR. W. C. ELLET: Councilors must be nominated by somebody from their own Councilor District.

DR. URMSTON: There is no Delegate from the District and we can ask Dr. Penberthy who is a Delegate to nominate him.

THE SPEAKER: Inasmuch as there is no Delegate from that District to nominate Dr. Perkins for Councilor, the Chair rules that the House must suspend its By-Laws in order for somebody else to nominate Dr. Perkins. I will entertain a motion for suspension of the By-Laws to nominate Dr. Perkins.

DR. ELLET: I so move that the By-Laws be suspended.

The motion was seconded by Dr. Wm. J. Stapleton.

PRESIDENT LUCE: I doubt your legal right to suspend the By-Laws.

THE SPEAKER: It is the House that suspends them.

PRESIDENT LUCE: That can be left as a vacancy and the incoming President can nominate Dr. Perkins to fill the vacancy after he takes office, and the Executive Committee can approve that and he will then be the Councilor.

THE SPEAKER: There is a motion before the House to suspend the By-Laws.

The question was put and the motion carried.

THE SPEAKER: We will now entertain a motion to nominate Dr. Perkins.

DR. GROVER C. PENBERTHY: As the stenographer no doubt has what I have already said, I would ask that that be accepted as my nomination speech.

The nomination was seconded by Dr. L. J. Hirschman.

DR. O'MEARA: I move that the nominations be closed.

The motion was seconded and carried.

DR. HIRSCHMAN: I move that the Secretary cast the unanimous ballot for the election of Dr. Perkins as Councilor for the Tenth District.

The motion was seconded by Dr. H. W. Plaggenmeyer and carried.

THE SPEAKER: The Secretary does so cast, and I now declare Dr. Perkins the Councilor for the Tenth District.

DR. E. R. WITWER: I move that the By-Laws be reinstated.

The motion was seconded by several and carried.

XII-3. DELEGATE TO A.M.A.

THE SPEAKER: We will now have nominations for Delegate to the A.M.A. to succeed Dr. L. G. Christian.

DR. H. W. WILEY: I wish to place in nomination the name of Dr. Leo G. Christian of Ingham County to succeed himself as delegate to the A.M.A. You all know the amount of work he has done on the Legislative Committee for this body. He has been a delegate for the last two years and is now President of our County Society, and I think he deserves to be returned to the A.M.A.

The nomination was seconded by Dr. LaBine, Dr. W. H. Welch, Dr. Grover C. Penberthy and Dr. Dean Myers.

DR. W. C. ELLET: I move that the nominations be closed.

The motion was seconded and carried.

DR. L. J. HIRSCHMAN: I move that the Secretary cast the unanimous ballot for the election of Dr. Christian as Delegate to the A.M.A.

The motion was seconded by Dr. Wm. J. Stapleton and carried.

THE SPEAKER: Dr. Oakes, will you proceed with your Report?

DR. E. A. OAKES: I shall present these Resolutions in the order in which they came as amendments to the Constitution and amendments to the By-Laws and two reports that were presented to this Committee for their consideration.

VIII-3. ON COMMITTEE REPORTS (Iodized Salt, VII-8)

The Report of the Committee on Iodized Salt is approved and accepted and adopted by this Committee, and it is recommended that the Committee be authorized to carry on for another year its splendid work.

The Committee recommends the adoption of this Report, and I so move.

The motion was seconded by Dr. R. M. McKean and carried.

DR. OAKES: The amendments to the Constitution will have to be held over until next year.

VIII-4. ON RESOLUTIONS (New Section, XI-2)

DR. OAKES: With the feeling that the Pathologists of this State deserve recognition in the deliberation of the State Society and their relationship with the profession and their respective hospitals, and in view of the fact that there is a strong feeling against the establishing of further Sections, it is the recommendation of this Committee that the present Sec-

tion on Radiology be changed to read the Section on "Radiology, Pathology, and Anesthesia."

I so move.

The motion was seconded by Dr. R. M. McKean.

THE SPEAKER: Is there any discussion on this? Maybe we ought to ask the x-ray men to discuss it.

The question was put and the motion carried.

DR. OAKES: Before I go into the changes in the By-Laws, I would like to say this: When our Committee met upstairs we were under a good deal of misapprehension as to the origin of some of these amendments to the By-Laws. These changes have been arranged by The Council to facilitate the work of this group of men and these Committees. It was unknown to the Committee at that time as to why these changes were asked for, and nobody had any information on them at the time. So on any of these that have been disapproved we would like to have a little discussion by the Delegates in the House and see whether or not you approve of them. I am going to take them up one at a time with your permission.

VIII-5. ON CONSTITUTION AND BY-LAWS (Duties of Officers—the Secretary, X-6)

The first one is the proposed amendment to Chapter 4, Section 4, of the By-Laws. The Committee moves the acceptance and adoption of this amendment.

I so move.

The motion was seconded by Dr. A. L. Arnold, Jr., and carried.

VIII-5. ON CONSTITUTION AND BY-LAWS (Transfer of Membership from One County to Another, X-4)

DR. OAKES: The amendment to Chapter 1, New Section 6. The Committee moves its acceptance and adoption.

I so move.

The motion was seconded by Dr. LaBine and carried.

VIII-5. ON CONSTITUTION AND BY-LAWS (Election of Officers by House of Delegates, X-5)

DR. OAKES: Chapter 3, Section 7: Amend paragraph (m).

The Committee moves the acceptance, and I so move.

The motion was seconded by Dr. Wm. J. Stapleton and carried.

VIII-5. ON CONSTITUTION AND BY-LAWS (Changes re: Standing Committees, X-8 and 9)

Chap. 6, Sections 1-2-4-6-7-9-10 approved.

DR. OAKES: Amendment to Chapter 6, Section 1.

The Committee approved of this, and I so move.

The motion was seconded by Dr. P. L. Ledwidge and carried.

DR. OAKES: This is the first one of the controversial ones that was brought up.

To amend Chapter 6, Section 2, by deleting the first paragraph and inserting in lieu thereof the following paragraph:

"The Committee on Legislation shall consist of a chairman, the President-Elect of the State Medical Society and the Chairman of The Council of the State Medical Society and members to be appointed by the President with the approval of The Council."

The Committee disapproves.

DR. W. C. ELLET: May we ask the Chairman of the Committee why they disapproved of this?

DR. OAKES: I endeavored to explain to you why the Committee disapproved, and I shall repeat it again. The members of the Council who run the organization and who have to deal with these Committees, tried to streamline these Committees to the point where they would function a little more favorably and a little more accurately than they did before. If you wish any explanation further than that, Dr. Foster can give it to you.

THE SPEAKER: Dr. Foster, will you please enlighten the assemblage about this.

DR. FOSTER: Mr. Speaker, it has come to our attention that in recent years in the appointment of committees the By-Laws of the Michigan State Medical Society have, for some reason or other, not been strictly adhered to. The staggering of the terms has been lost, and in legislative years activity has demanded, on numerous occasions, the appointment of extra men on the Legislative Committee to carry the load, and in off-legislative years a smaller committee is all that is necessary. While I am on my feet, I might say that beyond that there are other committees in which there is a specification of members. For instance, in the Public Relations Committee, it says there shall be nine, and it has had eleven for the last three years because nine can't cover the State. It was felt in looking over these various facts that were brought out that we are having various stipulations in the By-Laws to which we are not adhering, and it would seem better to delete all of these provisions we are ignoring rather than to violate them. It was simply done in an attempt to allow a flexibility so that if and when emergencies arise in the activities of the committees there will be leeway for the augmentation of those committees. So the officers went through the By-Laws in all those committees and where it said "five," just deleted the five leaving it to the President to appoint seven if the emergency demanded. And in view of the fact that there are staggered terms occurring on two committees—Legislative and Joint Committee representatives, neither of which have been adhered to—it was felt it would be better to take them out and simplify the By-Laws rather than have a lot of stipulations being ignored. That was the only reason an attempt was made to bring them up to date.

DR. E. D. SPAULDING: I happened to be in the middle of this rather violent discussion for a couple of hours this afternoon and there are two or three points to be brought out before you. After all, all representative government must compromise between dying of stagnation on the one hand and being catapulted into inadvisable action on the other. I quite realize that an incoming President should not be hogtied in having to deal with and through some of these committees. On the other hand, there are certain very important committees in any organization which get a great deal of strength from having men on those committees who have been battling with these problems years before. In starting with a new deal, every time you have a new executive, it is not always the best thing in the long run. In the legislative year if it is advisable to increase the number of your committee to carry the load, I see no reason why this should not be done. On the other hand, I think we are sledding for trouble in the years to come, if we get the Constitution over Niagara and allow each incoming executive officer to make a completely new sweep in all committee appointments. I am speaking in opposition to this, not because I wish to interfere

with progress, but I would like to have this a little bit conservative.

PRESIDENT-ELECT CORBUS: I would like to speak for that as incoming President. I might say to Dr. Spalding that two-thirds of the men on the Legislative Committee this year are the same as they were last year. Naturally, no incoming president is going to change his committees radically, and least of all the Legislative Committee. I think you could trust your President. Moreover, he does it with the approval of The Council. The difficulty comes when we all get mixed up with this staggered arrangement. You could hardly get anyone to serve as Chairman of the Legislative Committee unless he could feel that he could have around him the men with whom he could work.

THE SPEAKER: Does anyone else wish to discuss this matter? Will somebody make a motion that we either accept it as rendered or that we drop it?

DR. C. E. TOSHACH: I move that we accept the new By-Law as it was proposed.

The motion was seconded by Dr. C. F. Snapp and carried.

DR. OAKES: Moved an amendment to Chapter 6 of the By-Laws of the Michigan State Medical Society by deleting the entire Section 4, and inserting in lieu thereof a new Section 4.

The amendment was approved by the Committee, and I so move.

The motion was seconded by Dr. Wm. J. Stapleton.

THE SPEAKER: Is there any discussion?

That new Section replaces quite a lengthy section on the Medico-Legal Committee in your By-Laws.

DR. T. K. GRUBER: A question of information. May I inquire as to what is going to happen to the funds that have been allocated to the Medico-Legal Committee? Also the salary of the Chairman of the Medico-Legal Committee? Also the duties of the Medico-Legal Committee. With regard to members against whom action is brought in court, et cetera? I believe there is a reason for all of that but it would be well for someone to give an explanation as to why this radical change is made in the whole setup. I think it would be well to explain what is to happen to the funds that formerly went into this Committee's hands, and how they were deposited.

THE SPEAKER: Dr. Holmes, can you explain that?

DR. HOLMES: I will try to explain it. I think that every Delegate who was here last year recalls the proposed action of the Federal Treasury Department which planned to levy income taxes on the M.S.M.S. on the ground that we maintained a Medico-Legal Defense Fund which inured to the benefit of individual members. This, according to their interpretation, took us out of the classification of charitable and educational organizations and made us liable for income tax. Therefore, it became necessary for us to devise some method of handling medico-legal activities. Several years ago, a Council committee was appointed consisting of Dr. Greene and Dr. Andrews and myself to investigate and make a survey of the medico-legal question. That has all been printed in the Reports of The Council for the last few years. At this time, I don't think it is necessary to go into that except to say that we had even made a survey which indicated there was not the need for a Medical Defense Fund of the State-Society that there had been.

When this tax question came up, it became imperative that we make some decision that would save us from having to pay a rather large amount of taxes. That tax would be levied on all the funds

we received even though the Medico-legal work represented only a small percentage of expenditures. Later another development came up which wasn't brought entirely into our own state but which we discovered happened in Ohio; the legal profession, the Bar Association, had ruled that by maintaining this type of Defense Fund and hiring lawyers we were violating the ethics of the legal profession, and in Ohio the Medical Society was forced to discontinue its fund.

The amendment has the unanimous recommendation of the Committee of the Council and The Council itself. It provides for a Committee which, in case of suit against one of the members, will aid in providing advice and medical witnesses. But we will be unable, unless we wish to accept this large tax which would be assessed under the old method, to go ahead and legally defend our members; then with the use of credentials, professional malpractice or medical legal insurance companies, we are going to be in the same position we were in previously. There is no other method except to adopt this and then to watch further developments and see what changes have to be made.

THE SPEAKER: Does this explain it to your satisfaction?

DR. T. K. GRUBER: To my satisfaction, yes. I just thought it would be well for the various members of the House to understand what it was all about.

THE SPEAKER: Is there further discussion on this motion?

The question was put and the motion carried.

(Chap. 6, Sec. 5 and 8, Not Amended)

Amendment to Chapter 6, Sections 5 and 8, not approved.

DR. OAKES: Amend Chapter 6, Section 5, by deleting the whole Section and inserting in lieu thereof the following:

"The President shall appoint the members who shall constitute the Society's representatives upon the state committee known as the Joint Committee on Health Education."

This amendment was disapproved by the Committee because it removes the effect of the staggered appointments.

THE SPEAKER: What is your pleasure about the proposed change in the By-Laws? There has been no motion made on it.

DR. G. L. McCLELLAN: I move that the Report of the Committee be accepted.

The motion was seconded by Dr. Wm. S. Reveno.

THE SPEAKER: There is a motion before the House to reject the proposed amendment to the By-Laws. In other words, that is the sense of it. It accepts the Committee's Report which disapproves of the amendment.

Is there any discussion?

The question was put and the motion carried.

DR. OAKES: Amend Chapter 6, Section 8, by deleting the first paragraph and inserting in lieu thereof the following:

"The Committee on Postgraduate Medical Education shall be appointed by the President with the consent of The Council."

This Committee moves that this amendment be not adopted unless specific reasons for the discontinuance of the staggering of appointments to this Committee be given on the floor of the House.

THE SPEAKER: There is a motion that this amendment be not adopted. Is there any support to it?

The motion was seconded by Dr. P. L. Ledgwick.

DR. E. D. SPALDING: These amendments were proposed by somebody, and the Committee that discussed these things at some length this afternoon couldn't see any good reason for this amendment

being passed. To be perfectly fair, if there were good reasons, they suggested they be presented on the floor of the House. I would like to have those reasons presented.

THE SPEAKER: Will you tell why the Committee disapproved?

DR. OAKES: The Committee disapproved for reasons stated: unless specific reasons for the discontinuation of the staggering of appointments of this Committee be given on the floor of the House.

DR. J. M. ROBB: What are the reasons?

THE SPEAKER: This is a Council-sponsored amendment. Will some of the Councilors explain this or give some reasons why this amendment was proposed?

DR. FOSTER: Mr. Speaker, the President-elect has just asked me to reiterate what I said a moment ago. It seems that for a number of years the staggering has been ignored because of some confusion three or four years ago and it was impossible to untangle the appointments. Some had been reappointed after their terms were over. So while the specification for staggering the term is in the By-laws, it hasn't been adhered to. It was felt that rather than to embarrass the President to unscramble this, which he hasn't been able to do for several years, it would be better not to have it in there than to violate it year after year. It was just a question of taking it out because practically it hasn't been adhered to. There was no reason in the world for it, and you will find that apparently two years ago, I believe, one of the men whose terms wasn't up asked to be relieved from it; that left an unexpired term in the staggering; someone else was appointed and was supposed to have been considered in for a regular term. As I said before, no President in my recollection in the past three years has been able to unscramble these appointments.

DR. E. D. SPALDING: I would like to have a much better reason for dispensing with the Constitution than the mere fact that it has not been conformed to in the past years.

THE SPEAKER: This is a By-Law. Has anyone else any further discussion?

DR. CHARLES E. DUTCHESS: Even though there is apparently some confusion concerning the term of office of the various Committee members at present, it would seem to be relatively simple for the incoming President to arbitrarily appoint the new members for varying terms of office according to the specifications of the present By-Laws.

THE SPEAKER: The Committee has disapproved this, unless somebody gave a good reason. There is no motion on this question.

DR. R. A. SPRINGER: I move the action of the Committee be accepted. They rejected the amendment, and I move that their rejection be accepted by the House of Delegates.

The motion was seconded by Dr. R. L. Wade and carried.

(Chap. 6, Sec. 6, 7, 9, 10)

DR. OAKES: Amend Chapter 6 by deleting the entire Section 6.

This was disapproved by the Committee.

THE SPEAKER: What is your pleasure?

DR. R. M. MCKEAN: I understand that this is following up the desire to simplify or to make the Preventive Medicine Committee consist of the Chairman of each Committee, including the Cancer Committee. I have served on the Preventive Medicine Committee for the last several years, and I must say it has impressed me that this whole business of streamlining in this particular matter of making the chairmanship of certain sub-committees comprise the membership of the Preventive Medi-

cine Committee has very definite merit, and if the later proposal, which I understand also has suffered a similar fate, is to be turned down too, this is dependent on it. In other words, the two seem to me to go together and are to be considered to be turned down or accepted more or less in the same breath. Is that not right, Dr. Oakes?

DR. OAKES: That is correct.

DR. McKEAN: So for that reason it might be well to consider those which are so vitally linked together, or the other amendment changing the makeup of the Preventive Medicine Committee, first of all before considering this particular point.

DR. OAKES: I might say this: In considering the changes in Chapter 6, and this applies to most of the changes, what has been attempted here is what was explained a few moments ago, an endeavor to simplify or streamline these Committees and to make their functioning an improvement over the old method. If you are going to turn down one, turn down all of them. If you are going to accept one, accept them all, or else you spoil the whole thing. It is either the whole hog or none. As Dr. McKean said, to approve one and disapprove the other is not worth anything.

THE SPEAKER: Will you read the rest of them, Dr. Oakes?

DR. OAKES: This one is to amend Chapter 6, by deleting old Section 7, and inserting in lieu thereof a new Section, re: Preventive Medicine Committee.

Dr. Oakes presented the prepared amendment.

DR. OAKES: A part of this has been amended to read:

"The Chairman of the Preventive Medicine Committee shall be appointed by the President, together with the members of all Special Committees, with the consent of the Council."

DR. H. W. WILEY: A point of information: Isn't this an amendment to the By-Laws?

THE SPEAKER: It is changing one section of the By-Laws.

DR. WILEY: According to the Constitution, that has to lay over one meeting. This isn't the same as it was read this afternoon.

THE SPEAKER: The Reference Committee has the right to change it as they receive it.

DR. GRUBER: I move the adoption of the Report as read.

The motion was seconded by Dr. R. M. McKean and carried.

DR. GRUBER: I move the reconsideration of the previous motion on the Cancer Committee; that would have to be reconsidered. That is Chapter 6, Section 6.

The motion was seconded by Dr. A. L. Arnold, Jr.

THE SPEAKER: We didn't vote on that. We held it. The motion is out of order.

DR. CARSTENS: May we be informed as to what action was taken by that last motion? I find that nobody around me knows what we voted.

DR. OAKES: I will read it over.

Dr. Oakes re-read the amendment to Chapter 6, Section 7, concerning the Preventive Medicine Committee.

DR. CARSTENS: Dr. Gruber's remark is still pertinent. This includes a number of Special Committees which are not recognized by the By-Laws. Does that dignify them to be standing, permanent, or regular committees? I note the State Commissioner of Health is included, which is most commendable but possibly the State Commissioner of Health may not be a member or may not be an M. D.

DR. OAKES: Amend Chapter 6 by deleting the entire Section 6.

THE SPEAKER: That is the one on Cancer. Will somebody make a motion to adopt this Report? It fits in with what we have recently passed.

DR. J. M. ROBB: If it is true that the Health Commissioner of the State may not be a medical man, there is no way you can put that in the By-Laws and have it consistently hold.

THE SPEAKER: We are not voting on that. We are voting on this cancer matter now.

DR. T. K. GRUBER: In order to bring this matter of the Health Commissioner before the House for discussion, I move to reconsider this motion just passed, which included the Health Commissioner. I believe that should be discussed.

THE SPEAKER: There is a motion before the House to reconsider the change in the By-Laws which was just passed.

DELEGATE: A point of information. When I was a member of the State Council of Health, we very specifically had a provision in the law which provided that the State Commissioner of Health must be a Doctor of Medicine.

THE SPEAKER: Then a discussion on our By-Laws would be out of line.

DR. J. M. ROBB: I second the motion.

The question was put and the motion lost.

THE SPEAKER: What do you propose to do with the deletion of Section 6?

DR. R. M. McKEAN: I move that Section 6 re Cancer Committee be deleted and that the new Section just passed, which is a replacement of Section 7, be put in as Section 6 of the new By-Laws.

THE SPEAKER: That new numbering comes along later.

DR. McKEAN: Then I move that Section 6 be deleted.

The motion was seconded by several and carried.

DR. OAKES: Amend Chapter 6, Section 9, in line two, by deleting the words "consist of nine members" and insert in lieu thereof the word "be" so that the first sentence reads as follows: "The Committee on Public Relations shall be appointed by the President with the advice of The Council."

This was accepted and approved by the Committee. I move its acceptance and adoption.

The motion was seconded by Dr. C. Fremont Vale.

The question was put and the motion carried.

DR. OAKES: Amend Chapter 6, Section 10, in the first line after the word "shall" by deleting the words "consist of five members" and inserting in lieu thereof the word "be," so that the first sentence reads as follows: "The Committee on Ethics shall be appointed by the President with the advice of The Council."

Accepted by the Committee, and I move its adoption.

The motion was seconded by Dr. J. M. Robb and carried.

DR. OAKES: Amend Chapter 6 of the By-Laws by renumbering Sections 7, 8, 9 and 10 to 6, 7, 8 and 9, respectively.

I move that the Sections be re-numbered to conform to what has been done here tonight.

The motion was seconded by Dr. C. F. Snapp and carried.

THE SPEAKER: We return to our order of business. Nominations are now open for Alternate Delegates to the A.M.A. to succeed George Curry of Flint and Ralph H. Pino of Detroit.

XII-4. ALTERNATE DELEGATES TO A.M.A.

DR. HARVEY HANSEN: I would like to nominate Dr. George Curry to succeed himself.

The nomination was seconded by Dr. F. E. Reeder.

DR. G. L. McCLELLAN: I would like to nominate Dr. Ralph H. Pino to succeed himself.

The nomination was seconded by Dr. W. C. Ellet.
DR. R. A. SPRINGER: I move that the nominations be closed.

The motion was seconded by Dr. R. L. Wade and carried.

DR. T. K. GRUBER: A point of order.

"The number of alternate delegates to the American Medical Association shall equal the number of delegates. Alternate delegates shall hold office for two years. At each annual election candidates for alternate delegates at large shall be nominated in number equal to or greater than the number to be elected. Election of alternate delegates shall be by ballot. The required number of high candidates shall be declared elected."

THE SPEAKER: The number nominated was in number equal to the number to be elected; therefore, it is not necessary to ballot on them. The Chair so rules.

Will somebody make a motion that a unanimous ballot be cast for the election of the Alternate Delegates to the A.M.A.

DR. P. L. LEDWIDGE: Which one has seniority?

THE SPEAKER: We will draw straws.

DR. W. C. ELLET: I move that the unanimous ballot be cast.

The motion was seconded by Dr. C. K. Valade.

DR. T. K. GRUBER: I move you that the By-Laws of the Michigan State Medical Society be suspended to carry on this procedure.

THE SPEAKER: There is a motion before the House.

DR. GRUBER: May I read the rest of this paragraph?

"Alternate delegates at large so elected shall have relative seniority according to the respective numbers of votes received by them, and such seniority rank shall be designated at the time of election."

THE SPEAKER: The Secretary will draw straws.

The Secretary drew the name of Dr. Curry as Senior Alternate.

THE SPEAKER: The Speaker announces that Dr. Curry is the Senior Alternate to the A.M.A.

XII-5. PLACE OF ANNUAL MEETING

We will now take up the place of the Annual Meeting.

If there are no nominations, will somebody make a motion that this be left to the discretion of The Council?

DR. A. W. BLAIN: I so move.

The motion was seconded by several and carried.

XII-6. PRESIDENT-ELECT

THE SPEAKER: We will now entertain nominations for the office of President-elect.

DR. T. K. GRUBER: It gives me great pleasure to be afforded the opportunity to present the name of a member of this organization who has been in practice in this State since 1908. He has been a member of this House of Delegates on numerous occasions, he has been a member of The Council for approximately thirteen years and Chairman of The Council for the past three years: Dr. Paul R. Urmston of Bay City, who is engaged in the practice of eye, ear, nose and throat in that city and a very reputable citizen of the State and the community.

It gives me great pleasure to place his name in nomination for President-elect of this Society. (Applause)

DR. RALPH H. PINO: I should like to support that nomination. If in these times the virtue of hard work means anything to America, Dr. Urmston represents that. I have seen his work in the last two or three years at The Council, and I certainly couldn't stand what he stands and I don't think there are many who could. We admire him very much.

DR. W. F. MERTAUGH: I move that the nominations be closed.

The motion was seconded by Dr. G. L. McClellan and carried.

DR. J. M. ROBB: I move that the Secretary be instructed to cast the unanimous ballot of the House of Delegates for the election of Dr. Urmston.

The motion was seconded by Dr. C. E. Umphrey and carried.

THE SPEAKER: I now declare Dr. Urmston your new President-elect.

DR. LUCE, would you step out and find the new President-elect and bring him in.

The next item is the Election of the Speaker of the House of Delegates.

XII-7. SPEAKER OF THE HOUSE OF DELEGATES

DR. W. R. TORGERSO: I should like to place in nomination the name of Dr. Oscar Stryker for the position of Speaker of the House. Dr. Stryker lives in Fremont, Michigan, where he has been in private practice for a good many years. He has taken an active part in civic affairs and has been Mayor on a number of occasions. He is a general practitioner and as such represents perhaps the greatest majority of the members of the Michigan State Medical Society.

THE SPEAKER: Dr. Stryker has been nominated. Can we interrupt the proceedings at this point while we give an ovation to the new President-elect.

INTRODUCTION OF PRESIDENT-ELECT URMSTON

The meeting arose. (Applause)

THE SPEAKER: Dr. Urmston, would you mind giving us a few kindly words of wisdom.

PRESIDENT-ELECT URMSTON: I can tell you this much, gentlemen: that I certainly enjoyed the few moments of freedom that I had out in the lobby without thinking of anything except perhaps a fishing trip. But I perhaps felt like some prisoner who escaped, and as I started up the hall in lock-step with the President my brain clicked back in the same cog in which it has been during the last three years. As President-elect, I shall try to give you as efficient service as I have endeavored to render as a member and Chairman of the Council, and I thank you very much for this honor. (Applause)

THE SPEAKER: Thank you, very much, Dr. Urmston! In behalf of the Delegates here assembled, I wish to state that you will have our whole-hearted support as you were given in being unanimously elected. We trust that everything will go along as smoothly under your administration as it has under that of Dr. Luce.

DR. STRYKER has been nominated for the office of Speaker. Is there any support to this nomination?

The nomination was seconded by Dr. H. F. Dibble.

DR. A. T. HAFFORD: I move that the nominations be closed and that the Secretary be instructed to cast the unanimous ballot of the meeting for the election of Dr. Stryker.

The motion was seconded by Dr. G. L. McClellan and carried.

THE SPEAKER: I declare Dr. Stryker elected Speaker.

XII-8. VICE SPEAKER OF HOUSE OF DELEGATES

The next election is for Vice Speaker of the House of Delegates.

DR. W. C. ELLET: May I have the privilege of offering the name of a man who has been connected with the House of Delegates for the past nine or ten years; he has been our Master of Ceremonies and Sergeant at Arms. I wish to place in nomination the name of Dr. James J. O'Meara of Jackson.

The nomination was seconded by Dr. H. F. Dibble.

DR. A. L. ARNOLD, JR.: I move that the nominations be closed and the unanimous ballot of the meeting be cast for Dr. James J. O'Meara.

The motion was seconded by Dr. G. L. McClellan and carried.

THE SPEAKER: Is there anything to come up under the head of New Business?

DR. F. E. REEDER: If I may have the privilege of the floor. It is very unusual for me not to have looked you in the face for three sessions. There are just two things here to which I would like to direct your attention before adjournment. One is that you have sitting down in the aisle before you a gentleman who is honored by your having made him a Member Emeritus a year ago, and who has had the interest of this organization at heart for many years. I would like the Speaker to ask Dr. John Handy, now eighty-seven years of age, to make a bow.

Dr. John Handy arose. (Applause)

DR. REEDER: Mr. Speaker, may I ask you to retire from the Chair momentarily in favor of the Vice Speaker.

The Vice Speaker, Dr. Martin H. Hoffmann, took the Chair.

DR. REEDER: Mr. Vice Speaker, I move that we revert to the order of New Business.

The motion was seconded by several and carried.

DR. REEDER: Mr. Vice Speaker and Gentlemen of the House of Delegates: Two years ago you were most kind to me. However small the service

I may have rendered in this organization for practically a quarter of a century, having come up the hard way, you have observed tonight that another Speaker is about to retire who also has come up the hard way. You made me very happy in that you voted a little memento to me for my services, and tonight I, in turn, should like to present the same suggestion to you again. I would like, because of his faithful service as a Delegate for years having served his apprenticeship as Vice Speaker and now having completed his term of Speaker, this House of Delegates to recommend to The Council, to vote a sum of money not to exceed twenty-five dollars for the purpose of purchasing a suitable emblem for the retiring Speaker of this House. I so move.

The motion was supported by several.

The question was put and the motion carried. (Applause)

THE VICE SPEAKER: I will turn the meeting back to the Speaker.

The Speaker, Dr. Philip A. Riley, resumed the Chair.

THE SPEAKER:

Thank you, Dr. Reeder, and delegates. This is my farewell appearance on this platform. I have enjoyed it very much and I want to thank each and every one of you for the splendid coöperation which you have accorded me in the conduct of the meetings for the last two years. There have been three meetings and there has been lots of work to be accomplished. I know you get pretty tired sitting in those seats, but only once today was it necessary to pound this desk for order, and I think that is remarkable through a long session. I want to thank you again for all of your coöperation and to wish you luck for the coming years.

Is there anything further to come up?

DR. L. J. HIRSCHMAN: This is still under New Business. Before we adjourn, I would like to move a vote of thanks to the Kent County Medical Society for the hospitality which they are offering and the very pleasant surrounding in which we have had our meeting and for the nice weather they have provided.

This was seconded by many.

THE SPEAKER: Will all those in favor of Dr. Hirschman's motion please rise?

Those in assembly. (Applause)

Several announcements were made and the meeting adjourned at ten-thirty o'clock.

Read pages 960 to 963 and tell the people who desire information from their doctor!

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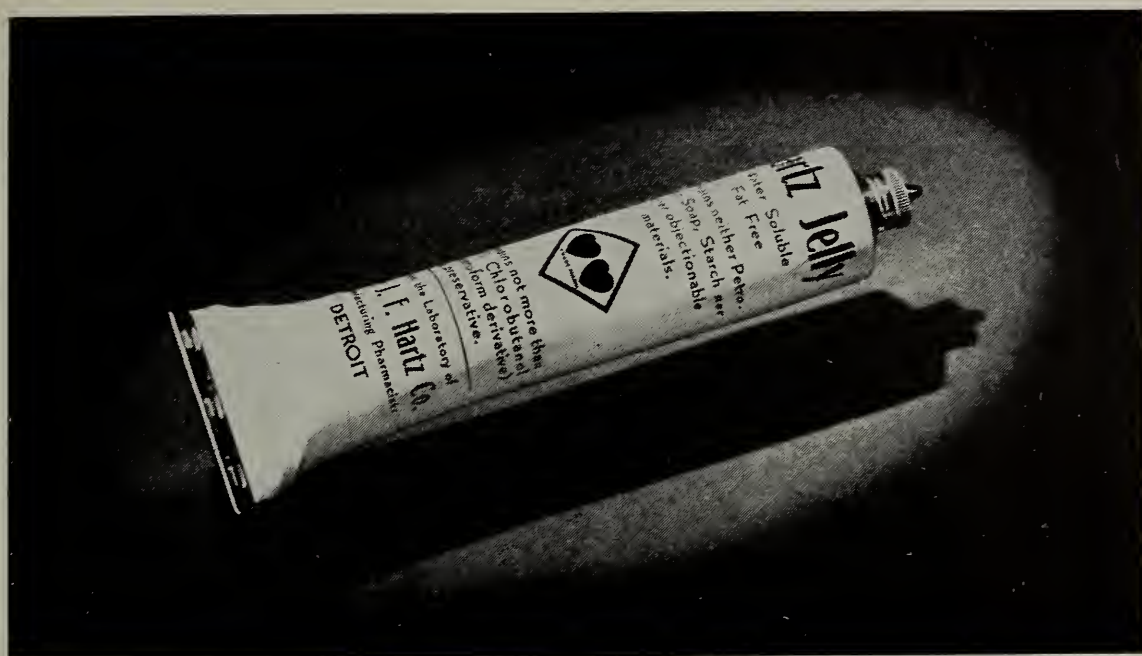
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PNEUMONIA SERUM TO BE DISTRIBUTED AGAIN THIS YEAR

The Michigan Department of Health has announced that anti-pneumococcic serum for the treatment of type 1 and 2 pneumonia will again be distributed free to physicians during the 1939-40 pneumonia season. The serum will be available from fifty-two distributing centers throughout the state in addition to thirty branch distributing centers in full time county and city health departments. Typing service will be available at 146 typing stations in addition to service available from the Michigan Department of Health Laboratories at Lansing, Grand Rapids, Houghton and Powers.

IMMUNIZATION RECORD CARDS PROVIDED FOR PARENT EDUCATION

The Michigan Department of Health is publishing an immunization record card for children which may be used by physicians in educating parents in immunization measures. These cards, size 5 inches by 8 inches, carry on one side the immunization schedule recommended by the Michigan Branch of the American Academy of Pediatrics, the Michigan State Medical Society and the Michigan Department of Health. On the reverse side, are blanks for recording the date these protective measures are given and the results, as well as height and weight record forms. Physicians may obtain copies of these immunization record cards for parents free upon request to the Michigan Department of Health at Lansing. At present the Department is sending a copy of this record form to mothers with each certificate of birth registration.

GOITER PREVENTION CAMPAIGN PROGRESSES

In its campaign to promote the use of iodized salt as a preventive of simple goiter, the Michigan Department of Health is distributing this month 650,000 educational folders. This folder has been prepared by the Iodized Salt Committee of the Michigan State Medical Society. The folders are being distributed through the school children to parents with the coöperation of the full time local health officers, the State Department of Public Instruction and local school administrators.

It was 15 years ago on May 1, 1924, that Michigan became the first state to add iodine to salt. All other states in the "goiter belt" of the nation subsequently adopted this simple method of controlling "the easiest known disease to prevent." Iodized salt became a byword with every housewife following the intensive educational campaign at that time to secure acceptance of this new product. The effective results of that campaign have been shown in the striking reduction in the prevalence of simple goiter among school children during the 10 years following the introduction of iodized salt.

It now becomes necessary to renew that emphasis upon the daily use of iodized salt in all homes where there are children. A new generation of parents are to be told the remarkable story of how iodized salt has been a means of preventing the enlargement of the thyroid gland with its accompanying undesirable physical conditions.

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Physicians who desire copies of the educational leaflet "Michigan Children Need Iodized Salt" may obtain them free upon request to the Michigan Department of Health at Lansing.

TO START DISTRIBUTION OF PERTUSSIS VACCINE

The State Health Department has announced that its new program for the production and free distribution of pertussis vaccine is now under way. Small quantities of the vaccine are being distributed at present upon special request. As soon as production facilities can be developed, additional supplies of pertussis vaccine will be made available for the use of all physicians in vaccinating young children against whooping cough.

NEW BAY COUNTY HEALTH DIRECTOR

Dr. Fred T. Andrews of Kalamazoo has been appointed as director of the Bay County Health Department, effective as of October 1. Dr. Andrews' headquarters will be at Bay City. Following many years of private practice in Kalamazoo, specializing in surgery, Dr. Andrews last year completed the training course in public health administration in the University of Michigan's school of hygiene and public health. Dr. Andrews succeeds Dr. C. E. Merritt, who has resigned to return to private practice. Dr. Andrews is a member of the Council of the Michigan State Medical Society.

DR. FRED O. TONNEY TO DIRECT DELTA HEALTH DEPARTMENT

Dr. Fred O. Tonney of Chicago has been appointed as acting director of the Delta County Health Department, with headquarters at Escanaba. Dr. Tonney will serve during the absence of Dr. R. Lanting, who has been given a leave of absence for postgraduate studies.

REGIONAL CONFERENCE TO BE HELD AT MIDLAND, OCTOBER 26

The third Regional Conference of Local Health Departments in Group 2 will be held at Midland, October 26. Dr. K. S. Haitinger, director of the Midland County Health Department, is acting as host for this meeting. Health department staffs from Isabella, Midland, Mecosta-Osceola, Bay, Wexford and District No. 7 will be present in addition to staff members of the State Health Department. The Conference will consider problems related to maternal and child health, public health dentistry and health education.

NINETEENTH ANNUAL PUBLIC HEALTH CONFERENCE TO BE HELD NOVEMBER 8, 9 AND 10

The nineteenth Annual Michigan Public Health Conference will be held at Grand Rapids, November 8, 9 and 10. Approximately 1,500 members of the health professions of Michigan are expected to attend. Headquarters will be at the Pantlind Hotel. Practicing physicians are cordially invited to attend.

Of special interest to physicians will be addresses by Dr. Bert I. Beverly of Northwestern University, Dr. Burton R. Corbus, president of the Michigan State Medical Society, Surgeon C. C. Applewhite of the United States Public Health Service and Sidney D. Kramer, secretary of the National Founda-

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One sip o' Johnnie Walker wi'
soda will convince ye that all's
well wi' this grand whisky.
Aye, it will tell ye that there's
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tion for Infantile Paralysis. A special round table will be held Thursday morning, November 9, for secretaries of the County Medical Societies and directors of full time local health departments.

**BIRTH AND DEATH CERTIFICATES
TO BE REVISED JANUARY 1, 1940**

The Bureau of Records and Statistics has announced that in accordance with the policy of the United States' Bureau of the Census the Birth and Death Certificates of the Michigan Department of Health will be revised on January 1, 1940. This revision occurs every ten years. The revised forms will be in the hands of county clerks, local health officers and local registrars within a reasonable time in order that all records after the first of the year may be recorded on the new forms.

CORRESPONDENCE

Sept. 15, 1939.

THE JOURNAL of
Michigan State Medical Society.

Dear Editor:

A visiting surgeon has requested that we report a method of tilting a bed by means of rockers, that we have been using at the Community Hospital, Douglas, Mich.

The method was prompted by having a patient who, because of a severe lung condition, had to lie



on his side for several weeks, thus developing a pressure sore. The use of the rockers permitted tilting of the bed so that the man could lie on his back and yet breathe with comfort—taking the pressure off his hip and permitting the wound to heal.

The rockers made an easy way to change position of the severely ill patient without lifting, and would also be of aid in certain cases of drainage.

The runners are four inches wide and are provided with slots to receive the castors of the bed. Turn buckles with hooks fasten them securely. A board can be placed along the lower side of the bed when tilted, to prevent any accident to the patient. Contrary to what one might think, the bed can be slid on these runners about the room with very little effort.

Yours truly,
E. T. BRUNSON.

JOUR. M.S.M.S.

IN MEMORIAM

Frank Payne Ramsey, M.D.

Dr. Frank Payne Ramsey of East Jordan, Michigan, died at his home on September 19, 1939, after an illness of two years. Born in 1873, the son of Dr. Wm. A. Ramsey, he was graduated from Northern Indiana Normal School at Valparaiso. After two years at the University of Michigan Medical School, he was transferred to the College of Physicians and Surgeons of the University of Illinois, from which he was graduated in April, 1899. He practiced for a year in Rapid City, Michigan, and in 1902 moved to Central Lake. In 1901 he married Miss Lillian Weikel of East Jordan, and in 1908 moved to that city. Dr. Ramsey was a member of his county and state medical societies, and the American Medical Association. He is survived by his wife; a niece, Miss June Ramsey, superintendent of nurses in Harper Hospital, Detroit, and a nephew, Paul Ramsey of South Bend, Indiana.

The worst mistake a man can make is to correct the mistakes of his friends.

A sharp tongue and a dull mind are often found in the same head.

A sharp tongue severs a good many real friendships in this world.

The Complete Eradication of
GOAL
Tuberculosis in the U. S.

Curing
Treating
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Nursing
Preventing
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Finding
Studying

ONE SEAL-ONE STEP



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*Chewing Gum
Is Like a Ray of Sunshine*



FOR CHILDREN PATIENTS

This is the way children look when they leave the office of a doctor who ends up each visit with a stick of delicious Chewing Gum. Build up Good Will in this inexpensive, beneficial way. (Besides, as you know, chewing gum is good for teeth—it helps cleanse and brighten them and affords a helpful exercise.)

This is not an experiment—there are already many doctors doing it with very successful results. See for yourself. Get some packages of Chewing Gum today.

Four Factors toward Good Teeth: (1) Proper Food, (2) Personal Care, (3) Seeing Your Dentist and Doctor and (4) Plenty of Chewing Exercise.

NATIONAL ASSOCIATION OF CHEWING GUM MANUFACTURERS, STATEN ISLAND, NEW YORK

T-222

◆ General News and Announcements ◆

President B. R. Corbus spoke before the Lions Club at Ludington on August 13. On September 7 he addressed the Lions Club at Belding on "Group Medical Care"; and on October 5 he spoke to the Blood Donors' League, in Grand Rapids.

* * *

L. Fernald Foster, M.D., Secretary, and Wm. J. Burns, Executive Secretary of the Michigan State Medical Society, were guest speakers at the Annual Convention of the Michigan State Grange in Traverse City on November 1.

* * *

Dr. Noah E. Aronstam of Detroit, is the author of a play entitled, "The Last Days of Sodom," in four acts, published in the *Jewish Forum* of June and July. Dr. Aronstam is to be congratulated on his literary ability.

* * *

The many friends of Dr. Chester A. Paull of Detroit extend their sympathy in the death of his wife, which took place on September 25. They were married in 1903. Mrs. Paull is survived by her husband and two children, Mrs. Elmer Lloyd and a son, John.

* * *

The Advisory Council to State Health Commissioner (H. Allen Moyer, M.D.) is composed of Henry F. Vaughan, Dr.P.H., Detroit; John L. Lavan, M.D., Grand Rapids; A. D. Aldrich, M.D., Houghton; Carleton Dean, M.D., Charlevoix; and Roy C. Perkins, M.D., Bay City.

"Why I Quit the Group Health Association" is the title of an illuminating article by Dr. Henry Rolf Brown, which appears in the September "Medical Economics." Dr. Brown was the first medical director of G.H.A. in Washington. He makes quite clear what happens when lay political management seeks to administer medical care.

* * *

F. T. Andrews, M.D., formerly of Kalamazoo, has been selected as Health Officer for Bay County. Dr. Andrews, a Councilor of the Michigan State Medical Society, began his new duties on October 9. Bay County is fortunate in obtaining a man of Dr. Andrews' practical experience, wide acquaintanceship, and executive ability as its Health Officer.

* * *

The State Tuberculosis Sanitarium Commission is composed of the following: L. C. Harvie, M.D., Saginaw; Dean C. Burns, M.D., Petoskey; E. J. O'Brien, M.D., Detroit; J. D. Bruce, M.D., Ann Arbor; Paul A. Martin, Lansing; Mrs. Grace Stair, Detroit; S. L. Marshall, St. Johns; P. G. Hanna, M.D., St. Joseph; and Wm. E. Robb, M.D., Howell.

* * *

The next examination held by the American Board of Obstetrics and Gynecology will be held in various cities throughout the United States and Canada on Saturday, January 6, 1940. Candidates for examination should write Dr. Paul Titus for further information and necessary application blanks at 1015 Highland Building, Pittsburgh, Pennsylvania.

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OR safety and reliability use composite Radon seeds in your cases requiring interstitial radiation. The Composite Radon Seed is the only type of metal Radon Seed having smooth, round, non-cutting ends. In this type of seed, illustrated here highly magnified, Radon is under gas-tight, leak-proof seal. Composite Platinum (or Gold) Radon Seeds and loading-slot instruments for their implantation are available to you exclusively through us. Inquire and order by mail, or preferably by telegraph, reversing charges.

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The record is based on rigid clinical and laboratory signs before and after treatment.*

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|-----------------------------|------------------------------|
| 1. Fresh smear | 3. Acid formation in maltose |
| 2. Fermentation of dextrose | 4. Agglutination test |
| 5. Alkali solubility test | |

*"Treatment of Acute Anterior Urethritis with Silver Picrate," Knight and Shelanski, AMERICAN JOURNAL OF SYPHILIS, GONORRHEA AND VENEREAL DISEASES, Vol. 23, No. 2, pages 201-206, March, 1939.

Silver Picrate is a crystalline compound of silver in definite chemical combination with picric acid. Dosage form for use in Anterior Urethritis: Wyeth's Silver Picrate Crystals used in an aqueous solution of 0.5 percent.

Supplied at all pharmacies in vials of 2 grams

Complete literature on Silver Picrate as used in genito-urinary and gynecological practice will be mailed on request.

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The Max Ballin Memorial Lectures (seventh series), presented by the North End Clinic of Detroit, began, November first, in the Detroit Institute of Art. I. S. Ravdin, M.D., of Philadelphia, was the first speaker. The second talk, on November 8, was given by Charles Geschickter, M.D., of Baltimore. The third and final address will be given on November 15 by Alton Ochsner, M.D., of New Orleans.

* * *

"The Citizens Committee for a Washtenaw County Health Department" was formed in September to sponsor the organization of a county health department. The Washtenaw County Health Department, in its desire to promote further health security by making available more adequate medical advice and service to all the people of Washtenaw County, co-operated in this movement.

* * *

The Michigan State Board of Registration in Medicine has the following personnel: J. D. Brook, M.D., Grandville, President; J. Earl McIntyre, M.D., Lansing, Secretary; W. Elwood Tew, M.D., Bessemer; C. R. Keyport, M.D., Grayling; Horace L. French, M.D., Lansing; Elmer W. Schnoor, M.D., Grand Rapids; W. C. Ellet, M.D., Benton Harbor; G. M. Byington, M.D., Detroit; Luther Peck, M.D., Plymouth; and Francis B. Jarzembowski, M.D., Hamtramck.

* * *

The Wayne County Medical Society has introduced an innovation in the field of medical broadcasting. In place of the weekly didactic talks which the W.C.M.S. Radio Committee has sponsored for a number of years, the Society has adopted the dramatized program. For thirteen weeks the new pro-

grams will have as their general theme the old and the new in Medicine. This series, entitled "Medical Magic," was inaugurated October 4 over WWJ and will continue every Wednesday for thirteen weeks, at 7:30 p. m.

Congratulations, Wayne County Medical Society!

* * *

Doctor, remember your particular friends, the exhibitors at your Annual Convention, when you have need of equipment, appliances, medicinal supplies and service. Here are ten of the firms which helped make the 1939 Convention such a great success:

Abbott Laboratories, North Chicago, Illinois
A. S. Aloe Company, St. Louis, Missouri
The Arlington Chemical Company, Yonkers, New York
Bard-Parker Company, Danbury, Connecticut
The Baker Laboratories, Cleveland, Ohio
Barnett Laboratories, Chicago Illinois
Barry Allergy Laboratory, Inc., Detroit, Michigan
W. A. Baum Company, New York, New York
Becton, Dickinson and Company, Rutherford, New Jersey
Boericke and Tafel, Chicago, Illinois.

* * *

The name of the "Detroit Society of Neurology and Psychiatry" has been changed to the "Michigan Society of Neurology and Psychiatry." The first meeting of the Society was held at The Haven, Rochester, Michigan, with Drs. Louis A. Schwartz, Richard Sterba, J. Clark Moloney and Leo H. Barte-meir on the program. The second meeting will be held at St. Joseph's Retreat, Dearborn, Michigan, Thursday, November 30.

The officers of the Society are: President, R. Gordon Brain, M.D., of Flint; Vice President, Linus J. Foster, M.D., of Detroit; and Secretary-Treasurer, Louis S. Lipschutz, M.D., of Eloise. The Councilors are Thomas J. Heldt, M.D., of Detroit, and P. V. Wagley, M.D., of Pontiac.

GENERAL NEWS AND ANNOUNCEMENTS

The Michigan Press Association, organized in 1867, which now has 264 weekly and 40 daily newspapers as members, devoted its September 29 *Michigan Mirror*, a newspaper release service, to Michigan Medical Service and the Michigan Society for Group Hospitalization.

The Michigan Press Association, managed by Mr. Gene Alleman, performs a splendid service in accepting for distribution only newsworthy releases free from commercial or political advertising. Releases can be most economically distributed through the Michigan Press Association.

The Michigan State Medical Society's proposed medical service plan, "Michigan Medical Service," has received widespread recognition and enthusiastic acceptance.

* * *

Ruling Regarding Committees

At the organization meeting of Chairmen of 1939-40 Committees, held in Grand Rapids on September 19, the following motion offered by Drs. James D. Bruce-Alexander M. Campbell, was adopted:

"All committee meetings of the Michigan State Medical Society should be officially called through the M.S.M.S. Executive Office in Lansing, at least one week's notice being given to the Executive Office by the committee chairman.

"The expenses of no committee meeting will be honored by the Executive Committee, or its minutes considered official, unless called under the foregoing provisions."

The above resolution was approved by The Council of the Michigan State Medical Society at its meeting on September 19.

Present at the Committee Organization Meet-

ing were: President Corbus, and Council Chairman H. R. Carstens, Drs. Alexander M. Campbell, James D. Bruce, P. R. Urmston, L. O. Geib, Wm. R. Torgerson, J. Duane Miller, S. W. Hartwell, R. S. Breakey, L. Fernald Foster, Harold A. Miller and Henry Cook.

* * *

About 600 leading dermatologists from all parts of the nation are expected to attend the second annual meeting of the American Academy of Dermatology and Syphilology at the Bellevue-Stratford Hotel, Philadelphia, November 6 to 8, inclusive. Sessions will be held in the form of symposia, special lectures in "courses" lasting from one to four hours each, and numerous Luncheon Round Table Discussions. Dr. Paul O'Leary of the Mayo Clinic, Rochester, Minn., is president of the American Academy, and Dr. Frank C. Knowles of Philadelphia is chairman of the Local Arrangements Committee. Others on the committee arranging the program are: Dr. Udo J. Wile, University of Michigan, Ann Arbor; Dr. Oliver S. Ormsby, Rush Medical College, Chicago; Dr. Gardner Hopkins, Medical Center, Columbia University, New York; Dr. Henry Michelson, University of Minnesota, Minneapolis; Dr. Richard Weiss, Washington University, St. Louis; and Dr. Earl D. Osborne, University of Buffalo, Buffalo, secretary of the American Academy.

Dr. Robert C. Jamieson of Detroit will present the subject "Treatment of Acne Vulgaris and Acne Rosacea" and Dr. Loren W. Shaffer will present "Public Health Problems in Syphilis Control," and Dr. Harther L. Keim is discussing "Lymphoblastoma," and Dr. Udo J. Wile of Ann Arbor, "Syphilis of the Viscera and Bones."

E M I N E N T

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HIGHLAND PARK PHYSICIANS' CLUB

The Fourteenth Annual Clinic of the Highland Park Physicians' Club will be held Wednesday, November 15, 1939, at the Highland Park General Hospital, Highland Park, Michigan. The program is as follows:

Morning Session—9:00 A. M.

Clinical Pathological Conference

EDGAR H. NORRIS, M.D., Professor of Pathology, Wayne University Medical School

Infections of the Hand

An authoritative discussion of the types with treatment and management of this important and common condition. Illustrated by lantern slides.

SUMNER L. KOCH, M.D., Associate Professor of Surgery Northwestern University, Chicago, Illinois.

Treatment of Hypertensive Disease from an Internist's Viewpoint

Special stress is laid upon etiologic considerations because of the important rôle played by therapy directed against specific etiology.

EDWARD J. STIEGLITZ, M.D., Washington, D.C., author of several books and publications on hypertension.

Treatment of Essential Hypertension by Extensive Sympathectomy

A complement to the previous discussion from the surgeon's side. Illustrated by lantern slides and a motion picture showing the surgical technic of sympathectomy.

ALFRED W. ADSON, M.D., Director of the Surgical Division of the Section on Neurology, Mayo Clinic, Rochester, Minnesota.

Hypertension

Round Table Discussion by Drs. Stieglitz, Adson, and Norris.

Luncheon—12:45 P. M.

Address of Welcome by Blaine T. Coleman, Mayor of Highland Park.

Luncheon as guests of Highland Park General Hospital.

Afternoon Session—2:00 P. M.

Analgesia and Anesthesia in Obstetrics

Topic of wide interest to all whether in this specialty or general practice.

EDWARD L. CORNELL, M.D., Assistant Professor of Obstetrics Northwestern University Medical School.

Diagnostic Criteria of Cancer

The problem of the degree of malignancy as interpreted by the pathologist and the clinician.

ALLEN GRAHAM, M.D., Director of Pathology, Cleveland Clinic, Cleveland, Ohio.

Temperature Factors in Cancer and Embryonal Cell Growth

The exposition of this original work on hibernation, with moving pictures illustrating the equipment used and the remarkable effects produced by this entirely new approach by means of temperature factors to the problem of etiology and treatment of cancer.

TEMPLE FAY, M.D., Professor of Neurology and Neurosurgery, Temple University Medical School, Philadelphia, Pennsylvania.

Annual Banquet—7:00 P. M.

Detroit Golf Club

"What Can We Believe?"

LEE WHITE, Editorial Director, *The Detroit News*.

The entire profession is invited to attend this Clinic, which is considered the finest one-day postgraduate course in the entire country.

County Society Meetings

Bay County—October 11—Bay City. Speaker: C. P. McCord, M.D., Detroit.

Berrien-Cass County—October 18—Dowagiac. Meeting of November 9 will be on "Ear, Nose and Throat Medicine."

Calhoun County—October 3—Battle Creek. Speaker: Harry Bawkin, M.D., Associate Professor of Pediatrics, N. Y., University School of Medicine.

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7. Sponge rubber foot.
8. Materials, workmanship and fitting guaranteed.
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GENERAL NEWS AND ANNOUNCEMENTS

Eaton County—October 12—Charlotte. Speakers: Stuart Pritchard, M.D., and M. R. Kinde, M.D., of Battle Creek.

Ionia-Montcalm County—October 10—Lake Odessa. Speaker: Charles McIntyre, M.D., Kalamazoo.

Kalamazoo Academy of Medicine—October 17—Kalamazoo. Speaker: F. Bruce Fralick, M.D., Ann Arbor.

Kent County—October 11—Grand Rapids. Speaker: H. C. Swenson, M.D., Grand Rapids.

Oakland County—October 4—Bloomfield Hills. Speaker: Gordon Myers, M.D., Detroit.

St. Clair County—October 10—Croswell. Speaker: Ira G. Downer, M.D., Detroit.

Washtenaw County—October 10—Ann Arbor. Speaker: S. Milton Goldhammer, M.D., Dept. of Internal Medicine, University Hospital, Ann Arbor.

Wayne County—October 2—Detroit. Business Meeting.

October 9—Detroit. Speakers: Lawrence W. Smith, M.D., Professor of Pathology, Temple University, Philadelphia.

October 16—Detroit. Speaker: Russell L. Haden, M.D., Cleveland, Ohio.

CONVENTION ECHOES

A total of 1,810 registered at the Grand Rapids Convention (not including the ladies). This figure includes 1,250 members of the M.S.M.S., 32 essayists, 257 exhibitors and 271 guests.

* * *

The 1,250 members of the Michigan State Medical Society registering at the 1939 Grand Rapids Convention came from every corner of the state. Michi-

gan cities with a population of 15,000 or more were represented as follows: Ann Arbor, 26; Battle Creek, 32; Bay City, 11; Benton Harbor, 10; Detroit, 184; Flint, 42; Grand Rapids, 195; Jackson, 22; Kalamazoo, 49; Lansing, 56; Muskegon, 37; Pontiac, 11; Port Huron, 7; and Saginaw 25. Twenty-three physicians practicing in Upper Peninsula cities registered. The balance of 520 physicians registered from scattered smaller cities in the lower peninsula.

* * *

A breakdown of the 1939 registration figures among the specialties shows 707 registered under General Medicine, 266 under Surgery, 88 under Gynecology and Obstetrics, 105 under Ophthalmology and Otolaryngology, 43 under Pediatrics, 25 under Dermatology and Syphilology, and 16 under Radiology.

* * *

News coverage: Michigan newspapers gave the Michigan State Medical Society Convention in Grand Rapids 1,966 column inches, or a total of 17,694 lines!

* * *

One hundred four out of one hundred eight members of the House of Delegates were present in Grand Rapids!

* * *

One hundred fifty-five office secretaries of physicians attended the "Business Side of Medicine" Symposium on Monday, September 18.

* * *

Robert J. Armstrong, M.D., Kalamazoo, and G. A. Seybold, M.D., Jackson, were winners of fitted travel kits presented by the Mennen Company at a drawing in the Mennen Exhibit on the last day of the Convention.

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Metrazol Tablets, Oral Solution and Powder for prescription compounding.

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DOSE: $1\frac{1}{2}$ to $4\frac{1}{2}$ grains (1 to 3 tablets, or 1 to 3 cc. oral or parenteral solution).

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Ferguson-Droste-Ferguson Sanitarium

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James C. Droste, M. D.

Lynn A. Ferguson, M. D.

PRACTICE LIMITED TO DIAGNOSIS AND TREATMENT OF DISEASES OF THE RECTUM

Sheldon Avenue at Oakes
GRAND RAPIDS, MICHIGAN

Sanitarium Hotel Accommodations

The Rev. Milton McGorrell, pastor of the Fountain Street Baptist Church, gave the Invocation on President's Night, September 20.

* * *

The Coca-Cola Company distributed 3,637 bottles of "coke" to thirsty physicians during the Convention.

* * *

The original painting by Dean Cornwell of "Beaumont and St. Martin," depicting the historic experiment of Dr. Beaumont and the injured Indian, was part of the beautiful display of John Wyeth & Bro. Inc., in the M.S.M.S. technical exhibit at Grand Rapids.

* * *

Bard-Parker's revolving blade, high-lighted by an indirect spotlight, threw a flash across the face of every physician sauntering towards the B-P booth, with the result that scores stopped to investigate.

* * *

Vernor's Ginger Ale did a flourishing business of "sampling." Thousands of cups of the champagne-ish liquid were enjoyed by visitors in the exhibit.

* * *

Members of the staff of Parke, Davis & Company doubled in the Thespian art at the Exhibitors' Gridiron on September 20 in Grand Rapids. The bearded "actors" and the smoothly-shaven "fireman" were depicted by Mr. John H. Shriever, Drs. R. A. Perkins, Carlton Winsor, D. K. Kitchen, Mr. J. F. Steen and Mr. John Nicol.

* * *

Schering Corporation's lighters added bright touches all over the Civic Auditorium and the Pantlind Hotel during the convention.

* * *

A wholesale inhale was enjoyed by the hundreds of physicians and their wives who stopped at the

Smith, Kline & French Laboratories' booth. Hundreds of the benzedrine inhalers were distributed by the Philadelphia concern.

* * *

Thirty Upper Peninsula physicians and their wives attended the "U. P. Reunion Dinner" on September 21 at The Pantlind. The group decided to sponsor an Upper Peninsula Dinner at the 1940 Convention for physicians who practice, or have practiced, or who are "natives," or who have married natives of the Upper Peninsula. W. H. Huron, M.D., Iron Mountain, was appointed chairman for the 1940 soir  e.

* * *

The Michigan Association of Alpha Kappa Kappa met in Grand Rapids on September 20 for its annual dinner. Wm. A. Mann, M.D., Chicago, Grand Vice President, addressed the group. The following officers were elected: C. F. Brunk, M.D., Detroit, President; C. K. Stroup, M.D., Flint, President-Elect; C. G. Clippert, M.D., Grayling, Secretary; Ward L. Chadwick, M.D., Grand Rapids, Secretary-Elect. Thirty-five members were present.

* * *

At the Secretaries' Conference of September 19 in Grand Rapids, many notables were present:

Judge E. R. Boyles, representing the Governor; State Health Commissioner H. Allen Moyer; Mrs. Eleanor Bulkley of the Michigan Crippled Children Commission; Representative Dora H. Stockman of East Lansing; Representative S. L. Loupee, M.D., of Dowagiac; Indiana's State Senator Tom A. Hendricks; President H. A. Luce, M.D., Secretary L. Fernald Foster, M.D., Drs. Harold A. Miller of Lansing, J. D. Miller of Grand Rapids.

Seventy-seven physicians attended the Conference. Among the county society secretaries were:

Drs. O. O. Beck, E. S. Parmenter, R. C. Conybeare, Wilfrid Haughey, George Loupee, T. Y. Ho, Thomas Wilensky,

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SURGERY—Two Weeks' Intensive Course in Surgical Technique with practice on living tissue every two weeks. General Courses One, Two, Three and Six Months; Clinical Course; Special Courses.

MEDICINE—Personal One Month Course in Electrocardiography and Heart Disease every month, except December. Intensive Personal Courses in other subjects.

FRACTURES AND TRAUMATIC SURGERY—Ten-day Intensive Course starting February 19, 1940. Informal Course every week.

GYNECOLOGY—Two Weeks' Course, April 15, 1940. One Week Personal Course Vaginal Approach to Pelvic Surgery, April 8, 1940.

OBSTETRICS—Two Weeks' Course, April 29, 1940. Informal Course every week.

OTOLARYNGOLOGY—Two Weeks' Course starting April 8, 1940. Informal Course every week.

OPHTHALMOLOGY—Two Weeks' Course starting April 22, 1940. Informal Course every week.

CYSTOSCOPY—Ten-day Practical Course rotary every two weeks. One Month and Two Weeks' Courses in Urology every two weeks.

ROENTGENOLOGY—Special Courses X-Ray Interpretation, Fluoroscopy, Deep X-Ray Therapy every week.

General, Intensive and Special Courses in All Branches of Medicine, Surgery and the Specialties.

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C. W. Colwell, D. K. Barstow, R. J. Himmelberger, John J. McCann, L. W. Gerstner, J. M. Whalen, E. T. Morden, H. C. Hill, D. Bruce Wiley, C. L. Grant, Wm. S. Jones, A. F. Litzenger, C. G. Clippert, Florence Ames, W. H. Barnum, H. H. Gay, D. C. Bloemendaal, J. H. Burley, J. W. Rice, Charles Ten Houten, W. B. Cooksey, and Michael Murphy.

Presidents of county societies who attended were:
Drs. George A. Sherman, G. J. Kemme, G. R. Hanke, C. L. A. Oden, L. M. Bogart and L. E. Blanchard.

Officers, councilors and committeemen of the M.S.M.S. present:

Drs. P. R. Urmston, H. R. Carstens, A. S. Brunk, H. H. Cummings, T. E. DeGurse, W. H. Huron, R. H. Holmes, W. E. Barstow, A. H. Miller, V. M. Moore, E. F. Sladek, I. W. Greene, L. G. Christian, C. F. DeVries, W. H. Alexander, F. T. Andrews, R. C. Perkins, Henry Cook, F. B. Miner, B. H. VanLeuven, R. R. Whitten, M. A. Hoffs, L. W. Day, B. F. Green, L. J. Hirschman, H. B. Fenech, J. B. Rieger, Paul Willits, H. M. Smith, A. E. Holland, T. P. Wickliffe, C. H. Keene, A. D. Aldrich.

Also among the guests were:

Dr. T. G. Hull of the A.M.A. in Chicago; Dr. N. W. Scott of New Jersey; Drs. W. E. Wheeler, C. E. Folsome, Albert McCown, P. A. Callahan, Wayne S. Ramsey, D. W. Patterson, J. P. Markey, George R. Goering; Messrs. A. M. Smith, Hugh E. Van de Walker, T. G. Werle, George F. Granger, Percy Angove, Miles F. Gray, N. E. Phillo, L. A. Potter, D. G. Clancy, V. F. Lemmer, Harry R. Lipson, H. C. Gerber, Otis Cook, Miss Helen Carrow.

* * *

What They Say About The Grand Rapids Convention

Budd C. Corbus, M.D., Chicago, guest essayist: "I enjoyed speaking to your group and I have never seen a better run State meeting in my life."

Wm. R. Bond, M.D., Schering Corporation, Bloomfield, N. J.: "I am taking this opportunity in behalf of the Schering Corporation to express our complete satisfaction with respect to the recent meeting of the Michigan State Medical Society at Grand Rapids."

Harold N. Cole, M.D., Cleveland, guest essayist: "I think the Michigan State Medical Society has one of the most progressive programs in the country. I admire the way you are carrying on and the methods you are employing."

Mr. Thomas B. Snow, Vice President of High Tension Electric Corp., New York: "Our representative has returned from Michigan with very glowing reports, not only of the splendid convention, but of the very fine manner in which the Society is handled."

W. O. Thompson, M.D., Chicago, guest essayist: "I was much impressed with your program, with the caliber of the men who attended and with the excellent facilities in Grand Rapids for the meeting."

M. D. Morton, President of C. B. Fleet Co., Lynchburg, Virginia: "Our representatives were particularly impressed with the business arrangements and reported a very satisfactory meeting."

M. C. Hunt of H. G. Fischer & Company: "We feel that as far as we were concerned the meeting was very satisfactory. Those doctors attending the meeting, I believe, showed more consideration to the exhibitors this year."

Carl P. Huber, M.D., Indianapolis, guest essayist: "I enjoyed the meetings very much and feel that you are to be complimented on the interesting program and excellent management."

Maxwell Finland, M.D., Boston, guest essayist: "I enjoyed the meeting very much and certainly felt hospitality all around."

Bert I. Beverly, M.D., Chicago, guest essayist: "May I congratulate you upon the excellence of the arrangement of the meeting and thank you for the courtesy and consideration shown me as a guest speaker."

F. J. Moloney, M.D., Sault Ste. Marie: "I wish to congratulate you and your associates on the ex-

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cellency of the State Medical Meeting in Grand Rapids. The lectures were grand and well attended. I have been to a great many meetings all over the United States and never saw a meeting handled any better—I refer especially to the exhibit."

J. H. Frazer, M.D., Arlington Chemical Company, Yonkers, New York: "I want to say to you in all honesty that your State Society is to be congratulated on its program. Without a shadow of a doubt this is the finest program that I ever had the pleasure of looking over for any State Society."

Lloyd D. Felton, M.D., Washington, D. C., guest essayist: "Congratulations for engineering what to me was an excellent medical conference under the name of the State Medical Society."

F. M. Rhatigan, Bard-Parker Company, Danbury, Conn.—"I have heard exhibitors enthuse about the Michigan State Medical meeting that never enthused before about anything in the way of exhibits, because they are not the kind of fellows who are given to enthusing."

T. A. Phillips, of J. B. Lippincott Company, Philadelphia: "We attend a great many State meetings and we consider that the Michigan State Medical Society tops them all."

THE DOCTOR'S LIBRARY

Acknowledgment of all books received will be made in this column and this will be deemed by us a full compensation to those sending them. A selection will be made for review, as expedient.

THE ART OF ANESTHESIA. By Paluel J. Flagg, M.D., Visiting Anesthetist to Manhattan Eye and Ear Hospital, Sixth edition, Revised. 161 illustrations. Philadelphia: J. B. Lippincott Company, 1939.

This work is essentially for physicians who administer anesthetics. The author emphasizes anesthesia as an art, a skill based upon a thorough knowledge of not only human physiology but surgical practice for which anesthetics are administered. He covers the entire field. This work of which the present is the sixth revision has been before the profession since the first edition in 1916. Those interested in the skillful administration of anesthetics will welcome a work by a master that has been kept up to date.

* * *

OFFICE GYNECOLOGY. By J. P. Greenhill, B.S., M.D., F.A.C.S., Professor of Obstetrics and Gynecology, Loyola University Medical School, Chicago; Professor of Gynecology, Cook County Graduate School of Medicine; Attending Gynecologist, Cook County Hospital; Editor of "Gynecology" in the Year Book of Obstetrics & Gynecology; Author of Obstetrics for the General Practitioner. The Year Book Publishers, Inc., 304 South Dearborn Street, Chicago, Illinois. 1939.

This is a valuable work which includes as implied in the title, operations which may be performed on patients in doctors' offices. It will be found a very useful work on routine gynecology on ambulant patients.

* * *

FACTUAL DATA ON MEDICAL ECONOMICS. Report prepared by the Bureau of Medical Economics, American Medical Association, 535 North Dearborn Street, Chicago, Illinois, 1939.

Every once in a while, there appears a report dealing with medical economics which is so interesting that it should be obtained by every physician. "Factual Data on Medical Economics" is such a report.

Prepared by the Bureau of Medical Economics of the American Medical Association, this report contains a splendid arrangement of essential information concerning the distribution of physicians, utilization of hospital facilities, vital statistics, sickness insurance, and medical services in relation to economic status. Twenty-nine charts and tables each

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accompanied by a short explanatory text present a mass of useful information in a concise and easily understandable manner.

The data in this publication are up-to-the-minute and deal with current medical problems. The Senate Committee on Education and Labor in its report on the Wagner Health Bill quoted directly from this report.

"Factual Data on Medical Economics" consists of sixty-seven pages, journal size, with large legible type, and may be obtained from the Bureau of Medical Economics, American Medical Association, 535 North Dearborn Street, Chicago, Illinois.

* * *

A SYNOPSIS OF REGIONAL ANATOMY. T. B. Johnston, M.D., Professor of Anatomy, University of London, Guy's Hospital Medical School. Fourth edition, published, 1939. 12 mo., 462 pages, illustrated. Cloth, \$4.50 net. Philadelphia: Lea & Febiger, Publishers, 1939.

While this is, essentially, a book for the medical student who has completed his anatomical laboratory work, doctors of medicine in actual practice will find it not without value. The work is not illustrated except for a chapter dealing with the central nervous system. The author sends the reader for his illustrations to the anatomical laboratory. "The book," the author says, "should not be consulted at all until the actual work of dissection has been completed and revision has been undertaken." The work is written in a clear and concise style, which suits it not only to the student but makes it of real service to the general practitioner. Explanations are presented without too many generalities. The author has endeavored to emphasize the practical. As a summary of the essentials of anatomy, this will be found highly satisfactory.

* * *

NUTRITION AND DIET IN HEALTH AND DISEASE. By James S. McLester, M.D., Professor of Medicine, University of Alabama, Birmingham, Alabama. Third edition, Entirely Rewritten. 838 pages. Philadelphia and London: W. B. Saunders Company, 1939. Cloth, \$8.00.

Perhaps no greater advancement has been made in any department of medicine than in the science of nutrition. The author has devoted much space to a consideration of the nature and physiologic influences of nutritive substances and to a discussion of disordered function. The work is not only a treatise on diet, it is a discussion of physiologic chemistry with particular reference to foods. While this is true, the subject of menus is also given full consideration, as seen in the chapters on diabetes mellitus and obesity and leanness, diseases of the kidney, etc. The book is recommended as a clear, in fact, almost exhaustive treatment of a very important subject.

A TOPOGRAPHIC ATLAS FOR X-RAY THERAPY. By Ira I. Kaplan, M.D., Director, Radiation Therapy Department, Bellevue Hospital; Director, Division of Cancer, Department of Hospitals, City of New York; Clinical Professor of Surgery, N. Y. University Medical College; Associate Visiting Radiologist, Lenox Hill Hospital, N. Y. C.; Editor of "Therapeutics" in the Year Book of Radiology; and Sidney Ruberfeld, M.D., Associate Visiting Radiation Therapist, Bellevue Hospital; Instructor in Surgery, N. Y. University Medical College; Assistant Adjunct Radiation Therapist, Hospital for Joint Diseases, N.Y.C. 120 pages, 55 full plates, \$4.00. 304 South Dearborn Street, Chicago: The Year Book Publishers, Inc.

This is an indispensable book for those, especially the beginner, attempting x-ray therapy. One can see at a glance almost the proper point of direction of the x-ray beam for various pathological conditions in which x-ray therapy is indicated.

* * *

DISEASES OF THE FOOT. By Emil D. W. Hauser, M.S., M.D., Assistant Professor of Bone and Joint Surgery, Northwestern University Medical School; Attending Orthopedic Surgeon, Passavant Memorial Hospital, Chicago. With a Foreword by Sumner L. Koch, M.D. 472 pages with 263 illustrations on 172 figures, some in colors. Philadelphia and London: W. B. Saunders Company, 1939. Cloth, \$6.00 net.

This book presents the anatomy and physiology of both the normal and the abnormal foot during the period of growth and development, as well as the adult foot. It is a work not only for the orthopedist but is a very practical treatise for the general practitioner. A knowledge of its contents will interest the latter in a field of medicine he is too often inclined to pass up as belonging to the orthopedist or to the chiropodist. The chapter on the application of bandages and casts is alone worth the price of the book. The work embodies both scholarship and practicability.

* * *

A TEXT-BOOK OF OCCUPATIONAL DISEASES OF THE SKIN. By Louis Schwartz, M.D., Medical Director, United States Public Health Service, in charge of Dermatoses Investigations, Washington, D. C., Lecturer, Department of Dermatology and Syphilology, New York University College of Medicine; and Louis Tulipan, M.D., Clinical Professor of Dermatology and Syphilology, New York University, College of Medicine. Illustrated with 116 photographs. Philadelphia: Lea & Febiger, 1939.

With the development of the workingman's compensation laws, occupational diseases have assumed a greater importance than ever before. One of the problems in connection with them is the evaluation of the amount of disability produced. This book deals in an exhaustive way with the subject and is of particular importance for the person who devotes his major time to occupational diseases.

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THE DIAGNOSIS AND TREATMENT OF CHOLECYSTITIS*

ROY D. McCLURE, M.D.†
DETROIT, MICHIGAN

In a discussion of gall-bladder disease here on the 50th anniversary of the founding of the Johns Hopkins Hospital, I think it fitting to consider briefly the diagnosis and treatment as it was 50 years ago, the changes that have been made in the interval, and the part that some of the members of the staff of this hospital have played in its evolution.

The founding of the Johns Hopkins Hospital marked a new era in medicine and medical education. The "big four"—Welch, Osler, Halsted, and Kelly—and their early associates did more by their example to raise the plane of medical education in the United States than had ever been done before or has been done since. At that time, modern surgery was in its infancy and surgical treatment of the biliary tract had just begun. The methods of diagnosis and treatment of few conditions have been changed more since the founding of this hospital than have those of our subject today. While the beginning of the modern treatment of biliary tract disease was coincident with the founding of this hospital, it was not entirely coincidence, since the members of the staff here have contributed so much.

Historians generally give Jean Petit credit for being the first to demonstrate in 1743^{32,43,45} that it was possible to remove gall stones surgically. He operated only when the gall bladder was connected with the abdominal wall by dense adhesions or by a fistulous tract. Practically no further progress is recorded until 1859⁴⁵ when Thudichum proposed two-stage cholecystostomy. Bobbs of Indianapolis in 1867¹⁷ had per-

formed the first one-stage cholecystostomy in America under the impression that he was operating on an ovarian tumor. Marion Sims⁴¹ in 1878 performed cholecystostomy unsuccessfully and Kocher the same year in Germany performed this operation successfully.¹⁷

As many of you know, it was shortly after this, in 1881,²⁴ that Dr. Halsted with so little precedent established, operated alone in the middle of the night on his mother. He removed a quantity of gall stones from an inflamed gall bladder and prolonged her life for at least two years.

The first cholecystectomy was performed in Germany in 1882 by Langenbuch.¹⁹ His success was soon repeated by others, Courvoisier⁵ in 1890 reporting forty-seven cases. The acceptance of this operation in England was delayed by Lawson Tait,⁴² who insisted that the entire possibilities of the treatment of gall stones had been summed up in Marion Sims' original work on cholecystostomy. The first cholecystectomy in America was performed in 1889 by Ohage.²⁹ It was shortly after this that Naunyn²⁸ in 1892

*Read at the 50th Anniversary celebration of the founding of Johns Hopkins Hospital, Baltimore, Maryland, May 5, 1939.

†Dr. George Wadsworth has been of great assistance in the preparation of this paper.

in Strassburg published his famous monograph on cholelithiasis.

Diagnosis fifty years ago had to be made from the history and physical examination alone. To have his condition diagnosed the patient had to be already labelled by a history of jaundice or colic. Osler, in 1891,³⁰ commented on intermittent pyrexia in common duct obstruction by stone and attached considerable diagnostic significance to this. It is interesting to note that even at that early period Osler was emphasizing the value of surgical treatment. An interesting sign is mentioned by Frerichs,¹⁰ who was Professor of Medicine in Berlin in 1860. He stated that a useful procedure in diagnosis was to listen for the rattling produced by the concussion of multiple stones when the gall bladder could be palpated. Jean Petit³² earlier had described this as being similar to the sound elicited when a bag of nuts is struck.

Thus fifty years ago, cholecystostomy was being done rarely and cholecystectomy still more rarely. While the only method of diagnosis was by history and physical examination, the men of that day must have been experts in that field. I wonder what we would think today if we found a surgeon listening for gall stones.

Halsted in 1892³⁶ introduced the method of draining the common duct by means of a catheter in the cystic duct, although in that case he had not opened the common duct. Later he developed this for use in cases where the common duct was opened and employed it throughout his career. A decade later, Dr. Halsted¹³ was emphasizing the brilliant and unexpected improvement which could be brought about by drainage of the common duct in patients extremely ill from the effects of common duct obstruction. At this time, he introduced also a method for opening the common duct from behind the peritoneum in cases where dense adhesions were found in front.

In 1898, many surgeons preferred to wait in cases with common duct obstruction for the duct to thicken before attempting surgery because of the difficulty of suturing the thin-walled duct. Dr. Halsted¹⁴ insisted at this time that it was to the patient's benefit to drain the common duct at the earliest possible moment. It was then that he developed his miniature hammers to facilitate the suture of the duct. And in order that

there should not be any excuse for delaying operation, he demonstrated both experimentally and clinically that suture of the unthickened duct could be readily accomplished.

Riedel of Germany at this period was outstanding in Europe in biliary surgery and was a proponent of the two-stage cholecystostomy. Halsted¹⁵ actively sponsored the one-stage procedure on the grounds that it was frequently impossible to remove stones when only one finger could be introduced through a small hole in the gall bladder.

Finney⁹ in 1902 described a new technic for cholecystectomy whereby peritoneal-muscular flaps were turned down from the gall bladder, the gall bladder mucosa shelled out and the flaps sutured over the bed. By turning down a peritoneal cuff on the cystic duct, he closed it securely and suggested that drainage of the abdominal wound in such instances was unnecessary. He very successfully used this procedure, closing without drainage in a number of instances. Halsted approved of efforts to avoid the development of biliary fistulæ after operation and he often emphasized their dangers at a time when many regarded them as unimportant. Osler³¹ was quick to encourage surgical treatment for biliary tract disease and with Halsted and Finney emphasized the value of early treatment. Yet as late as 1916, we find in the writings of prominent men such statements as, "Surgery should be resorted to in common duct obstruction when the obstruction persists for more than three months."

Twenty-five years ago the situation had undergone rather marked change. At the time of the 25th anniversary I had just succeeded George Heuer as Resident Surgeon while Walter Dandy was first assistant and Mont Reid was second assistant. The Johns Hopkins Bulletin, Vol. 36, contains a picture of Halsted with Finney, Bloodgood, McClure, Hugh Young, Cushing, Richard Follis, James Mitchell, Robert Miller, and Robert Churchman, and George Heuer. While this picture was being taken, Sir William was standing in front of the group helping the photographer obtain smiles.

At that time surgical operation had definitely been established in the treatment of gall bladder disease. Although there were

still those who tried to postpone surgery, the question had moved on from whether operation should be resorted to at all to whether cholecystectomy or cholecystostomy should be done. Debate was waged also over the question of whether operation should be done in cases of asymptomatic stones.

Kelly was the first⁴ American gynecologist to insist that the gall bladder be examined in the course of gynecological operations and, even though asymptomatic, that stones be removed if found. I recall an interesting incident in connection with this. Dr. Kelly had just performed a gynecological operation and in the course of his usual exploration of the upper abdomen he had found that the gall bladder contained four stones with one in the common duct. So after the completion of his first procedure, he redraped the patient for an incision over the gall bladder. Dr. Osler happened to come into the operating room at this time and asked what the procedure was to be. Kelly replied that he was going to remove four stones from the gall bladder and one from the common duct. His original incision of course was covered by the drapes. Dr. Osler decided to watch the operation since Kelly had ventured so positive a prediction and you can well imagine his surprise when it turned out just as Kelly had said it would.

At this period, Mayo Robson³⁸ and Kehr were actively sponsoring cholecystostomy as opposed to cholecystectomy. W. J. Mayo²⁵ in 1905 reported 1,000 biliary tract operations and of these about 70 per cent were cholecystostomies. It is interesting to note the changes in opinion on this subject. Deaver^{6,7,8} for example in 1908 actively opposed cholecystectomy unless the gall bladder was greatly diseased, but in 1920 he was as convinced of the efficacy of cholecystectomy.

Twenty-five years ago, diagnosis, too, had made rapid strides. The x-ray was beginning to be used as an aid in the detection of calcium gall stones. Bauer's^{1,2} galactose test which had been introduced in 1906 was being used to determine liver function. Here at Hopkins, Dr. George Whipple^{46,47,48,49} was making extremely extensive and significant studies of jaundice, blood lipase and fibrinogen in liver damage, and other studies of liver function and experimental liver

damage. Rowntree⁴⁰ and Hurwitz and Bloomfield had originated the phenoltetrachlorophthalein test of liver function, and Horwitz and Bloomfield³ were studying the sugar tests of liver function.

Kussmaul's¹⁸ origination of the stomach tube in 1869 had been followed by numerous investigations for a method for introducing a tube into the duodenum and finally various men reported obtaining bile regularly by this method. It was not until Meltzer²⁶ of the Rockefeller Institute in 1917 had demonstrated that the introduction of magnesium sulphate into the duodenum would cause the gall bladder to discharge its contents that the possibilities of this procedure were clear. Lyon,^{20,21,22} a Hopkins' graduate, and Rehfuess,^{33,34} quickly followed this up and established the duodenal tube as an invaluable adjunct in diagnosis.

The last twenty-five years have seen equally profound advances. We have seen cholecystectomy definitely established as the operation of choice; and the question of whether to operate in cases of asymptomatic stones has been settled in favor of operation. I recall that when I went to Detroit in 1916 we were much criticized at the Henry Ford Hospital because we had instituted cholecystectomy as almost the routine operation from the start.

New and advanced methods of diagnosis have been evolved—Graham's¹² method of cholecystography in 1925, the icterus index by Meulengracht²⁷ in 1920, and the van den Bergh⁴⁴ in 1918. Rosenthal³⁹ has introduced the bromsulphalein test of liver function, which is a modification of the phenoltetrachlorophthalein test evolved here at Hopkins by Rowntree and his associates. Long experience with it has established biliary drainage at the head of our diagnostic methods at the Henry Ford Hospital. Newer hepatic function tests such as the hippuric acid tests are still in a process of development.

And with all these developments, one should not believe that all the questions of biliary tract disease have been settled. One of the outstanding things to be learned in a review of the history of any disease is that, in such a constantly changing field as medicine, any prediction is likely to be dangerous. To demonstrate this we have only to remind ourselves of how Lawson Tait opposed cholecystectomy on the ground that

Marion Sims in 1878 had exhausted the possibilities for the treatment of gall stones in his treatise on cholecystostomy.

The question which now keeps coming up is as to whether cholecystitis is on an infectious or chemical basis. I feel we should keep an open mind on the subject. It seems that the admirable five year study of this question by Rehfuess and Nelson³⁵ is almost conclusive in favor of the infectious basis at least as the starting point. There are many outstanding men, however, our own Dr. Gatch for one, who feel strongly in favor of the chemical metabolic theory.

I would like to give you an account of our experience at the Henry Ford Hospital in the handling of biliary tract affections and some of the things we have learned from it.

The Diagnosis of Chronic Cholecystitis and Cholelithiasis*

The presence or absence of gall bladder disease should be determined accurately in every patient who complains of persistent indigestion. For clinical experience confirms the fact that "dyspepsia" or epigastric distress is the most frequent and often the only complaint in these cases. At the Henry Ford Hospital in 1937, 1,915 patients were treated for complaints referable to the upper gastro-intestinal tract. Of these, 336, or 17.6 per cent, were found to have gall bladder disease, the diagnosis being substantiated by definite laboratory and x-ray evidence.

In the evaluation of this diagnosis, the clinical evidence is still of tremendous importance in spite of the valuable refinements of diagnosis which have evolved in the last twenty years. One still sees occasional cases where the refined methods show normal findings and the characteristic clinical evidence is the only real clue to the correct diagnosis. In such occasional cases, it is important not to be misled by the absence of evidence from the refined methods.

As noted above, epigastric fullness or bloating is the most frequent and often the only clinical symptom. This symptom is often very distressing and difficult to relieve. There may be associated pyrosis. As regards the pain of gall stone colic, it is im-

portant to note that it may start either in the epigastrium or under the right costal margin and that it may radiate either to the interscapular region of the back or to the inferior angle of the right scapula. The subsidence of the severe pain, slight elevation of temperature, and leukocytosis after a few hours, in uncomplicated gall stone colic, is a great aid in differentiating this condition from acute cholecystitis, in which the above findings tend to persist. Jaundice may occur in the hepatitis secondary to acute cholecystitis, or in the intermittent form with common duct stone. The classical triad of symptoms occurring in common duct stone cases needs no elaboration.

In the physical examination of these cases, the most important pitfall is to misinterpret chronic irritable colon or simple colitis tenderness for gall bladder tenderness. Such confusion can be avoided best by examining the patient in the sitting position and palpating upwards against the liver edge and into the gall bladder area. The transverse colon tends to drop away from the costal margin when the patient sits up. When the above differentiation is difficult, Carnett's sign may be of considerable aid. It should be noted furthermore that a palpable mass in the gall bladder region may represent carcinoma of the gall bladder, empyema, hydrops, or a gall bladder packed with stones. Occasionally, in patients with a very thin abdominal wall, the latter finding may be demonstrable. In carcinoma of the gall bladder, a lapet of liver may be carried below the costal margin by the growth of the tumor.

Although the clinical evidence is still of great importance the refined methods of diagnosis have added tremendously during the past twenty years to the percentage of correct diagnosis of gall bladder disease, especially in the group of patients who have mild symptoms or no localizing symptoms at all. In the study of these cases by our Gastro-Intestinal Division, the following examinations have proven to be especially helpful: (1) duodeno-biliary drainage, (2) cholecystography, (3) various jaundice studies, and (4) liver function tests which are of value both in jaundiced and in non-jaundiced patients with chronic gall-tract disease.

1. Duodeno-biliary Drainage: This examination is a highly technical procedure

*I am grateful to Dr. J. G. Mateer for his contributions in this section and in the section "Medical Management of Cholecystitis."

which gives valuable information, provided two conditions are met. In the first place, it is necessary to have a nurse in charge who has had experience with this procedure and who is able to quickly meet the various difficulties which frequently occur in the conduct of this examination; and, in the second place, it is essential that the bile should be examined by a microscopist who really knows the cytological findings occurring in the bile. Biliary drainage is a waste of time if the above conditions can not be met. If properly conducted, biliary drainage affords the following valuable information: First, the failure to get any of the dark colored "B" bile, or gall bladder bile, after the duodenum has been stimulated at least three times (the last time by olive oil), indicates impairment of gall bladder function and has the same significance as the non-visualization of the gall bladder in the cholecystograms. As Carman once stated, no gastro-intestinal diagnosis can be too strongly fortified with evidence. In the second place, the combined finding of the finely granular orange, calcium bilirubinate pigment in association with clumped cholestrin crystals suggests either gall stones or gall sand. Although it is not definitely diagnostic of stones, it does indicate definitely at least some degree of gall bladder pathology. The combination of pigment and crystals occurs in 65 to 70 per cent of gall stone cases. In the third place, the finding of bile-stained clumped pus cells is indicative of cholangitis. The certainty of this diagnosis is increased if there is associated bile stained common duct epithelium or bile stained colonies of bacteria. These findings occur early in the pathogenesis of gall tract disease, often before any x-ray evidence is apparent.

2. Cholecystography: Even though it does not differentiate the calculus and non-calculus cases, non-visualization of the gall bladder in the serial films is the most valuable of the cholecystographic signs, since it occurs in such a high percentage of patients having gall bladder disease. This sign is usually reliable when obtained in the first set of cholecystograms. In borderline cases, however, its reliability should be confirmed by repeating the cholecystograms after the patient has been on a short period of intensive medical management. Or, it may be re-

peated promptly. Cholecystography, by making possible the demonstration of negative density as well as positive density stones, makes possible a total diagnosis of 35 per cent of gall stones subjected to x-ray examination. When obtained, this is the most gratifying of all diagnostic findings, since it definitely differentiates the calculus group of cases. In a small percentage of cases, normal cholecystograms may be obtained when gall stones are present. Therefore, in the presence of positive clinical data, normal cholecystograms should not be allowed to mislead one from making the correct diagnosis.

3. Jaundice studies: In any jaundiced patient, the possibility of common duct stone must be considered in differential diagnosis. In our clinic, the following jaundice studies are carried out routinely:

(a) Stools are examined daily for the presence of bile, and also for occult blood.

(b) By biliary drainage we determine whether any bile is entering the duodenum.

(c) The serum bilirubin curve is determined by the use of the icterus index and quantitative, indirect van den Bergh test.

(d) The differential diagnosis between obstructive and hepatic jaundice is further corroborated by the following indirect methods, *i.e.*, the galactose tolerance test, the total blood cholesterol and esters, and the blood phosphatase.

(e) The following x-ray studies are carried out, *i.e.*, plain gallbladder films, barium meal examination of the stomach and duodenum, and barium enema, to rule out metastatic carcinoma of the liver arising from gastric or colonic carcinoma, or primary carcinoma of the duodenum, as causes for the jaundice, and

(f) Hemolytic jaundice studies are conducted, if indicated. These jaundiced patients are kept in the hospital for a week or ten days of intensive daily study. In order to obtain the most reliable results the above studies should be carried out early in the course of the jaundice, and these tests should be repeated in order to follow the course of the jaundice, and in order to determine the development of any secondary liver damage in the obstructive cases. In order to avoid error in the interpretation of these various repeated tests for different liver functions, it is absolutely es-

essential that the results of the various tests should be interpreted in relation to the particular stage of the jaundice or underlying disease process. If jaundiced patients are studied in this manner, one seldom has any difficulty in differentiating obstructive from hepatic jaundice. It is not always possible before operation, however, to differentiate malignant obstruction of the common duct from impacted common duct stone. On the other hand, the diagnosis of a ball-valve stone is usually not difficult.

In our obstructive jaundice cases, whether due to common duct stone or other organic obstruction of the common duct, we routinely determine the blood prothrombin during the diagnostic period and then give vitamin K with bile salts three times a day for four days before operation, and also for about seven days after operation, in order to prevent the bleeding tendency of postoperative jaundice cases. The value of intravenous glucose and blood transfusions in this operative group of jaundiced patients has, of course, been recognized for some time.

4. The hippuric acid liver function test is a simple, sensitive, and inexpensive laboratory test, which should be used both in jaundiced and non-jaundiced patients with chronic gall tract disease for the estimation of the degree of associated liver damage present. It is our routine practice to do an hippuric acid liver function test on all of our gall stone cases before we start to prepare the patient for operation. The patient is then placed on a high carbohydrate diet, with supplementary intravenous glucose therapy, in order to rapidly improve liver function over a four-day period. At the end of this period, the hippuric acid liver function test is repeated in order to be sure that the patient's liver function is satisfactory for surgery.

The bromsulphalein liver function test can also be carried out in the non-jaundiced cases, and the findings are reliable when there is dye retention at the end of thirty minutes. As this test is usually carried out, however, it is not as sensitive an index of liver damage as the hippuric acid excretion test.

Harrup's bilirubin excretion test for liver function, like the hippuric acid test, is a relatively sensitive test. We have not used

it as a routine clinical procedure, however, because of the cost of purified bilirubin.

Management

A. Medical

In those cases of chronic cholecystitis not presenting any definite evidence of gall stones, it has been our custom to place the patient on medical management with further observation.

The program of medical treatment has been as follows:

1. Any primary foci of chronic infection are usually eliminated.

2. The patient receives a program of general upbuilding treatment, with correction of any faulty habits of eating, drinking, bowel function, etc.

3. The patient is placed on a well-balanced diet containing an average amount of animal fat, *e.g.*, cream or butter. This provides the usual effective stimulus for the emptying of the gall bladder. If the patient should have gall stones, the fat in the diet may cause some distress; but if it does it serves the useful purpose of causing one to suspect the presence of gall stones. One may then be forced to curtail the fat in the diet.

4. The administration of bile salts before each meal is, of course, extremely helpful in the treatment of this group of cases.

If the patient's epigastric distress cannot be cleared up by a comprehensive program of medical management, and if all other possible causes for the distress have been carefully ruled out, one has obtained additional clinical evidence strongly suggesting not only cholecystitis but also the presence of gall stones.

B. Surgical

When a diagnosis of cholelithiasis is established, the problem of management and advice to the patient presents itself. This is a real problem in those cases without symptoms, in which cholelithiasis is discovered accidentally. Such persons are not demanding relief of symptoms, but are interested in what the future holds for them.

We must all realize that in the past, surgical treatment of cholecystic disease has not answered all the problems. One of the main reasons for this is that surgery has been resorted to after too long a delay. If the diagnosis is not made in the incipient stage of the disease, and surgical treatment

instituted, then, we cannot expect 100 per cent cures! Removing a diseased gall bladder when the liver and all the hepatic ducts are diseased, too, cannot be expected to alleviate all the difficulties. We must work toward earlier diagnosis and earlier treatment if surgery is to answer more of the problems of cholecystic affections.

Persons with asymptomatic stones are confronted with the following dangers which should be explained to them:

1. Impaction of a stone in the cystic duct, with the development of acute hydrops or empyema of the gall bladder, which condition sometimes necessitates an operation when conditions are not optimum. Empyema may progress to perforation into the general abdominal cavity, causing peritonitis, or the neighboring viscera may become involved in the process, so that subsequent operation is greatly complicated. Intestinal obstruction from a gall stone which has eroded through the gall bladder wall into the duodenum is a surgical curiosity, but has been reported a number of times.

2. Common duct obstruction or stones in the common duct without obstruction. This usually results in jaundice, and occasionally ascending cholangitis and focal areas of suppuration in the liver. Prolonged obstruction results in a general liver damage of the cirrhotic type. Common duct surgery is more difficult than simple cholecystectomy, hospitalization is more prolonged and increased mortality and morbidity rates have been reported.

3. Danger of carcinoma. We have recently reviewed 36 cases of carcinoma of the gall bladder in our hospital, and stones were found in 22 of 25 cases in which the gall bladder was opened. In the light of our present knowledge, carcinoma of the gall bladder must be attacked in a prophylactic way, because the mortality after gall bladder carcinoma has developed is between 95 and 100 per cent. There is one five-year cure in our series. The almost constant association of gall stones with gall bladder cancer does not prove etiological relationship, but it is very suggestive and is all we have to work on at the present time.

4. Pancreatitis. The frequent association of pancreatitis (acute and chronic)

with cholelithiasis is also suggestive of a causal relationship.

5. Focal infection. In the past five years, we have removed twenty-two gall bladders in an attempt to clear up all foci of infection in patients with arthritis with striking results in a few of these patients. The recent work of Rehfuess throws an interesting light on this relationship.

If treatment is indicated on account of symptoms or the possibility of the complications just enumerated, it should be surgical. If a patient refuses operation, or a clear-cut contraindication to operation exists, medical treatment as previously outlined should be instituted. In some cases, symptomatic relief may then be obtained, but the risk of subsequent complications persists.

Cholecystectomy is the procedure of choice in the surgical treatment of chronic cholecystitis. Cholecystostomy or ideal cholecystotomy with removal of stones are rarely indicated.

Since the operation is an elective one, we have time to obtain a thorough preoperative check. We have mentioned the evaluation of the condition of the liver, and the use of glucose preoperatively. Most of these patients are of such an age that a check of the status of the heart by a cardiologist, and an electrocardiogram are comforting. Obesity, *per se*, is not a serious factor, other than increasing the technical difficulties of the operation. The presence of intercurrent respiratory infection, both acute and chronic, should be ruled out carefully.

Acute Cholecystitis

The practitioner who turns to the current surgical literature for advice on the management of acute cholecystitis is not likely to receive much help, particularly if his reading is extensive. For, paradoxically enough, the more he reads, the greater will be his confusion. He will find authorities of equal eminence diametrically opposed in their ideas regarding the optimum time for operation in acute cholecystitis. Nor is the mental confusion on this subject limited to the authorities and the neophytes, for the average surgeon follows neither school of thought but relies on that sixth sense, commonly known as clinical judgment.

a. *Diagnosis.*—The diagnosis of acute cholecystitis is almost entirely clinical. Most of the technical aids which are so essential to the diagnosis of chronic cholecystitis cannot be utilized in acute cholecystitis because of the possibility of their being harmful to the liver parenchyma. The only exceptions to this rule are (1) the flat x-ray plate of the abdomen (which is only helpful if positive density gall stones are present), and (2) certain of the liver function tests. The weakness of the liver function tests lies in their lack of sensitivity. They are positive only when between 70 and 80 per cent of the liver function has been destroyed. The galactose tolerance test is not contraindicated in suspected acute hepatitis and should have a more general use in order to rule out those cases of hepatic insufficiency which stand operation so poorly, a point that has been so repeatedly emphasized by Ivy.¹⁶

However, in spite of the lack of diagnostic aids, acute cholecystitis is not a difficult disease to recognize clinically, for a correct preoperative diagnosis was made in 96 per cent of our cases.

History.—The importance of early surgery for gall bladder disease is emphasized by noting that only 5 per cent of the cases in our series had not had symptoms referable to the biliary tract prior to the acute attack, and 86 per cent of the patients had received medical treatment.

Symptoms.—Pain, nausea, and vomiting are the outstanding symptoms of acute cholecystitis. They were present in 90 per cent of our cases. Clinical jaundice was noted in one-fourth of the patients, and one-fifth of them complained of chills at the onset of the attack. The pain and tenderness were located in the gall bladder region in 95 per cent of the cases, thus accounting for the high number of accurate diagnoses.

The maximum temperature before operation would appear to be of some prognostic value, because the death rate of patients whose temperature was above 102° before operation was three times the rate of those whose temperature did not reach this level, and the one patient whose temperature went above 104° died after surgery.

Acute cholecystitis incites a prompt leuko-

cytic response. A leukocyte count of above 15,000 white blood cells per cubic millimeter is an index of the seriousness of the condition, for in our cases the death rate was double the mean rate in those whose leukocyte count ranged above 15,000 per cubic millimeter. We have always rather arbitrarily used the figure of 20,000 per cubic millimeter as indicating impending gangrene of the gall bladder and as a definite indication for immediate operation.

Management.—The management of acute cholecystitis is, in the main, an individual problem. Definite rules for handling are difficult to lay down, and only generalizations can be made. The mortality in a group of 320 consecutive cases operated upon at the Henry Ford Hospital was 5.3 per cent. We have, for many years, practiced early operation, *i.e.*, the patients were operated upon as soon as they were diagnosed and properly prepared for operation.

I would like to explain what I mean by early operation, as there is considerable confusion in the literature over the terms "early" and "delayed" operation. We do not feel that any case should be operated upon before adequate preparation is completed, but that every patient should have a period of very thorough preparation before operation, as indicated in the individual case. However, we see no reason to delay operation beyond this period. This, of course, means that the patient will be in the hospital three or four days or more before operation. The only exception to this is that cases in which a complication such as gangrene or rupture of the gall bladder seems impending are operated upon immediately. A review of our cases shows that in former years when we operated earlier than we do now in the course of the disease, the mortality in cases operated upon within 25 hours after onset was 8.4 per cent. The mortality in patients operated upon 72 hours or more after onset was only 3.4 per cent. An identical observation was made regarding the period of hospitalization before operation. The group of patients that was in the hospital at least 72 hours before operation showed the lowest mortality rate.

We do not believe in delaying the operation after the patient has been adequately prepared.

In our cases, preoperative pulmonary complications increase the operative risk three times and cardiac complications double the risk. We also feel that liver insufficiency has not received the attention it merits, and for this reason believe that all patients should have a liver function test before being subjected to surgery.

The age of the patient, too, deserves some thought, for our records indicate that the mortality after operation rises with each succeeding decade.

The real problem in the management of acute cholecystitis comes in the handling of those patients in whom the complication of jaundice exists. Jaundice is now becoming more and more recognized as a symptom of hepatitis. Certainly the gravity of the condition is dependent upon the degree of liver involvement. All available laboratory means should be employed to rule out the cases of extrahepatic jaundice and of acute yellow atrophy. Having determined that the jaundice is obstructive, Courvoisier's law may be of value in deciding whether the blockage of the duct is due to stone or to new growth. The law states that in the presence of a palpable gall-bladder the obstruction is likely not to be due to stone. But, of course, this rule has its exceptions. We have found in our experience that a repeated positive guaiac test upon the stool is the only constant sign of new growth. Operation should not be performed in the face of a rising icteric index, for even if obstruction is complete, or almost so, a constant level is eventually reached. These jaundiced patients, of course, should have investigation of the bleeding, clotting and prothrombin time and should receive vitamins D or K, bile salts, and blood transfusion, if the above tests at any time indicate a bleeding tendency.

Operative Procedures

Cholecystectomy was performed in 93 per cent of the cases and is the operation of choice. However, there are certain cases in which cholecystostomy, or one of its modifications such as the procedure of chemical cholecystectomy as practiced by Dr. Willis Gatch,¹¹ is a life-saving measure. Choledochostomy was performed in 6.6 per cent of the cases. It did not add to the operative mortality.

Summary and Conclusions

Clinical impression is of limited value in the recognition of chronic cholecystitis, for its diagnosis depends largely upon laboratory and technical methods of investigation. A plea is made for more complete study of all patients complaining of persistent indigestion.

Acute cholecystitis, on the other hand, is a condition in which a clinical diagnosis can be made with a high degree of accuracy (96 per cent of the cases reported). A plea is made for the greater utilization of the galactose liver function test in acute cases.

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THE FLEXIBLE GASTROSCOPE AS A DIAGNOSTIC AID*

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Any new instrument which enables us to see the interior of a viscus, without undue risk to the patient, merits very careful and serious consideration. This consideration should now be given to the new Wolf-Schindler flexible gastroscope which was perfected in 1932. Gastrosocopy with the flexible scope has become a relatively simply procedure and is as practical as any other endoscopic examination.

Historical Data

In 1868 Kussmaul¹ was the first to pass metal tubes down the esophagus into the stomach in sword swallowers. He used an external source of light, because at that time there was no adequate way of lighting the interior of the stomach. (The Edison electric lamp was developed in 1879.) He soon decided that it was very dangerous and so of no practical value.

In 1881 Mikulicz² used a closed rigid tube with a lamp at the end. The objective of the optical system was just proximal to the light. He actually saw the pylorus in its sphincter movements and diagnosed carci-

noma correctly. However, the procedure was too dangerous and he abandoned it.

From 1895 to 1910 several clinics in Germany, as well as Chevalier Jackson in this country, were improving instruments and observing the stomach through a rigid open tube. Foreign bodies were removed and biopsies were taken but only a small area of the stomach was visualized. The procedure was of limited value and was safe only in the hands of very few experts.

In 1923 Schindler⁴ published a monograph on 400 gastroscopies, using a rigid gastroscope⁵ which he himself constructed in 1922. But it was not until 1932 that Schindler⁶ and Georg Wolf, a medical instrument maker in Berlin, perfected the

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present flexible gastroscope, by mounting a series of small lenses in a tube, at short enough intervals so that the image is not blurred when the tube ends. A clear image is maintained within thirty-four degrees of

her finger is a small electric light, encased in a glass window. Next is the objective containing a prism. Then follows a series of 48 lenses which are supported in the flexible portion by a spiral steel spring wire.

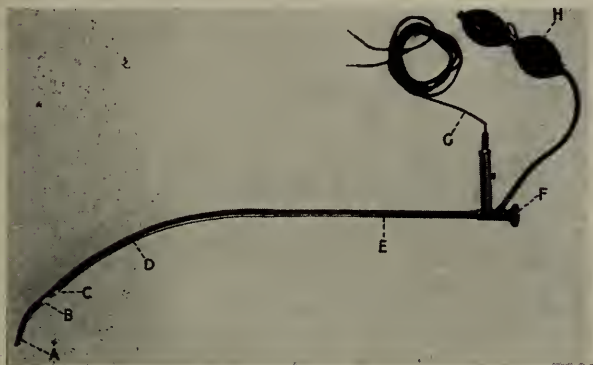


Fig. A. Wolf-Schindler flexible gastroscope: (A) rubber finger; (B) electric lamp; (C) objective; (D) flexible part; (E) rigid part; (F) ocular; (G) electric cable, and (H) air balloon.

flexion. Beyond that, there is poor visibility.

For the past six years we have had, therefore, a method for the internal examination of the stomach which compares with that for the urinary bladder. While the x-ray shows size, shape, position, capacity, motility, flexibility, gross filling defects and deep lesions, the gastroscope observes the mucous membrane and depicts inflammation, swelling, edema, hyperplasia, atrophy, erosions, hemorrhage, infiltration and pathological exudate. The two methods are therefore complementary one to the other, and in no way conflict.

Like the cystoscopist, the gastroscopist must make his diagnosis on visual interpretation, which involves considerable knowledge of gastric pathology, physiology, clinical interpretation, etc.

The Flexible Gastroscope

The flexible gastroscope is a closed tube 30 inches long. The proximal half of the metal tube is rigid. The distal part is cut in a long spiral, and completed by two rubber tubes, thus making the distal half flexible.

The scope has at its end, a solid, conical, rather firm elastic piece of rubber 4.6 cm. long. This so-called "rubber finger" bends as soon as it touches the surface of the stomach and leads the scope smoothly over the mucosa, thus preventing perforation of the stomach. Immediately back of the rub-

Blind Spots

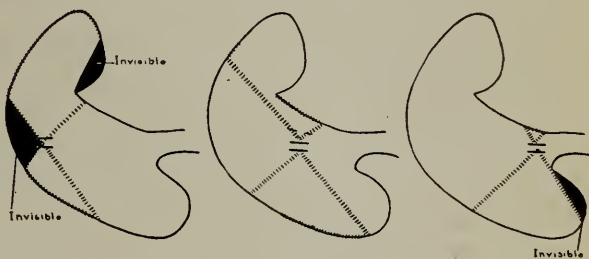


Fig. B. Blind spots.

There is an arrangement (by means of double walled tube) to pump air through the scope. This emerges into the stomach through three small perforations near the tip.

Examination

The patient reports for examination to the office or out-patient department on an empty stomach. A hypodermic of one-half grain of codeine sulphate and one one-hundredth grains of atropine sulphate is given to decrease the activity of the reflexes and the flow of saliva. The throat is swabbed with a solution of 2 per cent pontocaine to which is added one drop of adrenaline hydrochloride (1-1000 solution) to each c.c. of the pontocaine. The hypopharynx and the upper portion of the esophagus are then anesthetized with the same solution through a special anesthetising tube. The stomach is emptied by gravity method with an Ewald stomach tube. The patient lies on the left side, his head held by a nurse and the gastroscope is passed. The stomach is then inflated with air, illuminated, and examined. For further details in the technic of gastroscopy see Schindler.⁷ After the examination the patient abstains from food for about an hour. He may return to work the same day.

One can see the entire interior of the stomach except for four blind spots (Fig. B).^{*} Three small invisible areas are not important because lesions are rare in these

^{*}Figure B shows only three blind areas.

The fourth blind area: The gastroscope lies against the posterior wall, and when the objective faces the mucosa, the distance is too short for visualization. Thus a small strip of the posterior wall theoretically cannot be seen.

areas. One cannot always see the lesser curvature of the prepylorus, the most important limitation.

One cannot see the esophagus, the duodenum, take a photograph or do a biopsy. Naturally one cannot determine the presence or absence of metastases.

Contraindications

The contraindications to gastroscopy are: aneurism of the aorta, obstruction of esophagus, obstruction of cardia, varices of the esophagus, cardiac decompensation, severe dyspnea, fever, recent history of swallowing corrosive poison, severe scoliosis and peritoneal irritation.

It may be stated, however, that whenever the Ewald stomach tube is passed with ease prior to gastroscopy (to empty the stomach) the gastroscope will also pass without difficulty.

Indications

Recent reports from many clinics are unanimous in proving the usefulness of the instrument in the following conditions:

- (1) Differentiation between benign and malignant ulcer (Case 1).
- (2) Suspicious gastritis (Cases 2, 6, and 7).
- (3) Persistent abdominal distress following gastric surgery (Case 2).
- (4) Unexplained: (a) abdominal distress, (b) gastro-intestinal hemorrhage, (c) loss of appetite, (d) loss of weight (Cases 2, 5 and 6).
- (5) Question of both diagnosis and operability of carcinoma of stomach (Cases 3, 4 and 7).
- (6) Control of positive and indefinite x-ray findings (Cases 5, 6 and 7).

The Normal Stomach

The normal mucosa of the stomach when viewed through the gastroscope is orange-red in color, glistening with highlights and appears soft, flexible and mobile.

The antrum with the pylorus relaxing and contracting is usually observed. The incisura angularis is seen as a parabolic curve (Figs. 1, 2 and 3).

The lesser curvature is nearly devoid of folds. The anterior wall presents a delicate network of folds (Fig. 4). The posterior wall and greater curvature exhibit thick parallel folds (Fig. 5).

Case Histories

The following cases have been selected, from a larger series of cases, to show the gastroscopic appearance of several of the more common pathologic conditions of the stomach; also how gastroscopy may at times aid in a more accurate diagnosis when its findings are correlated with clinical and roentgenological data.

Case 1.—Differentiation between benign and malignant ulcer (Fig. 6).

Mr. M. F., aged 57. History suggestive of ulcer began in 1937. X-ray examination in 1937 was negative for ulcer or malignancy. In January, 1939, pain in epigastrium became more marked and was not relieved by food or alkalis. Loss of appetite, weakness and loss of weight also started January, 1939. From January, 1939, to April, 1939, there was a loss of 17 pounds. The hemoglobin was 85 per cent and the red blood cells 3.8. There was no free acid in the gastric contents even on histamine stimulation.

X-ray January 28, 1939: "Gastric ulcer with crater of moderate size on the lesser curvature side in the pars media."

X-ray April, 1939: "Ulcer crater is smaller; progressive improvement. Nothing further can be said about the etiologic factor except that the progressive improvement under treatment would favor an inflammatory rather than neoplastic process."

An ulcer regime was instituted January, 1939. The symptoms disappeared and patient began to gain weight. However, symptoms recurred intermittently.

Because of the age of the patient, the sudden aggravation in symptoms, loss of appetite, loss of weight, the absence of free acid in the gastric contents and the presence of secondary anemia, carcinoma of the stomach was suspected, especially in view of the size of the lesion by x-ray.

Gastrosopic examination April 1, 1939: "Small white ulcerated area over angulus on lesser curvature. The border is sharply demarked and reddish giving the appearance of a benign healing ulcer" (Fig. 6).

X-ray June 9, 1939: "Some enlargement of the ulcer crater since the last study, although the crater is not quite as large as when first demonstrated in January of this year. The roentgen appearance is still that of a benign lesion with no definite evidence of malignancy, except for the failure to respond to treatment satisfactorily."

Follow-up September, 1939: Patient is symptom-free.

Summary of Case.—Ulcer crater in lesser curvature. Gastroscopy confirmed x-ray diagnosis of benign ulcer. Conservative treatment could be carried out with more assurance that it was not cancer.

Case 2.—Persistent distress following gastric surgery (Fig. 7).

Mr. A. T., aged fifty-two. History typical of ulcer began in 1915. A gastro-enterostomy was done in 1930. Ulcer symptoms recurred in 1931. However, since 1938 symptoms have not responded to either ambulatory or bed rest management. Severe epigastric pain, nausea, vomiting, belching, distention and loss of weight were marked.

X-ray March, 1937: "Deformed duodenal bulb. No jejunal ulcer."

X-ray April, 1937: "Deformed duodenal bulb. No jejunal ulcer."

X-ray April, 1938: "Deformed duodenal bulb. No jejunal ulcer."

X-ray April, 1939: "Duodenal ulcer and peptic ulcer at the stoma."

Because the patient did not respond, as previously, to the usual medical bed-rest-management for ulcer, gastritis was suspected as a complicating factor.

Gastroscopic examination May 5, 1939: "Ulcer at gastro-enterostomy stoma. The mucosa was dull, with diminished highlights, and appeared swollen, and sponge-like. It presented a velvety appearance. The changes in the mucosa were typical of hypertrophic gastritis" (Fig. 7).

Surgery, May 24, 1939: "The old gastro-enterostomy was undone. A Finney pyloroplasty was performed because of the presence of considerable scar tissue at the site of the old duodenal ulcer.

"The old scar tissue in the area of the stomach was biopsied. This showed 'catarrhal gastritis, chronic ulcer with scar tissue base and no malignancy. The duodenal mucosa also showed catarrhal inflammation with no malignancy.'"

Follow-up September, 1939. Patient is symptom-free.

Summary of Case.—Persistent distress following gastro-enterostomy for duodenal ulcer. X-ray showed only deformed duodenal bulb. Gastritis, suspected clinically, was demonstrated gastroscopically. The operative indication was then clear.

It is essential to determine the presence or absence of gastritis in the postoperative stomachs. Schindler⁸ states that, in the presence of gastritis, "the best form of therapy is the undoing of the gastro-enterostomy if this is possible. It is surprising how quickly and how completely the most severe of these gastritides heal once the normal physiology of the stomach is restored."

Case 3.—Carcinoma of the greater curvature of stomach (Fig. 8).

Mr. J. M., aged forty-six. Epigastric pain after meals, belching, sour taste and occasional nausea began March, 1938. There was a loss of eight pounds from December, 1938, to March, 1939. Free acid was present in the gastric contents. The stools were negative for occult blood. Kahn negative.

X-ray January 11, 1939: "Rugæ in upper portion of stomach are large and irregular. There is a partial filling defect at the greater curvature border in the anterior-posterior view, not seen in oblique view. Findings: Gastritis. Re-examine at a later date."

Because of the presence by x-ray of an indefinite filling defect at the greater curvature of the stomach, carcinoma was naturally suspected.

Gastroscopic examination March 10, 1939: "There is an ulcerative carcinoma on the greater curvature of mid-portion of the stomach" (Fig. 8). "Proximally, there is sufficient normal mucosa to permit performing a gastric resection."

X-ray March 14, 1939: "A large irregularity was seen in the greater curvature portion of the stomach.

However, there was some pliability of the walls which to some extent rules against malignancy. Examination was repeated on two occasions and the same findings were obtained."

Surgery: Gastric resection March, 1939.

Microscopic Diagnosis: "Undifferentiated small cell type carcinoma of the stomach."

Follow-up September, 1939: Patient is symptom-free.

Summary of Case.—Gastric carcinoma, greater curvature. Gastroscopy more accurate than x-ray. At the time of the operation, the site of the lesion presented only an indurated, stippled appearance of small extent on the serosa of the greater curvature. With the information gastroscopy had given, gastric resection was immediately done with more diagnostic certainty than if we did not have it.

Case 4.—Scirrhus carcinoma of antrum (Fig. 9).

Mr. M. E., aged seventy. Ulcer-like history began November, 1938. There was a loss of 12 pounds by March, 1939. The gastric contents showed no free acid. The stools showed 4 plus occult blood. The hemoglobin was 90 per cent and the red blood cells 4.58. The Kahn examination for syphilis was negative.

X-ray March, 1939: "Definite carcinoma in the distal third of the stomach. There is also a linitus affecting the proximal portion of the stomach."

Gastroscopy was performed to confirm the positive findings by x-ray.

Gastroscopic examination April 2, 1939: "There is an infiltrating non-ulcerative scirrhus carcinoma of the stomach involving the antrum" (Fig. 9). "Proximal to the antrum the stomach appears normal. Because of the patient's good physical condition, resection is advised in spite of his age."

Patient refused operation. He died suddenly August 5, 1939, following an injury.

Autopsy "showed stomach wall to appear normal except in lower portion, where it appears two to three times normal thickness. Cut section reveals hard white tumor mass involving large area of stomach."

Microscopic Diagnosis: "Linitis plastica. Diffuse scirrhus carcinoma of stomach wall."

Summary of Case.—Scirrhus carcinoma of antrum. X-ray, definite for carcinoma of distal third of stomach, also showed involvement of proximal portion. Gastroscopically proximal portion of stomach was not involved. Autopsy confirmed gastroscopic observation.

Case 5.—Benign tumor (Fig. 10).

Mr. M. S., aged fifty-six. Ulcer-like history began in 1926. He first reported for medical care December, 1936, when he suffered a hemorrhage (melena). He was hospitalized for three weeks, during which time he was under rigid Sippy management. There was no loss of weight since the onset of his illness. Free acid was present in the stomach contents. The Kahn examination for syphilis was negative.

X-ray January, 1937: "Filling defect of pars media of stomach, suspicious of malignancy."

X-ray February, 1937: "Abnormality in the com-

plete filling of the pars media of the stomach. Fluoroscopically, there was no definite filling defect or ulcer crater, but we believe there is sufficient variation from the normal to warrant a careful check-up examination with particular reference to this portion of the stomach in about a week."

Gastroscopic examination February 20, 1937, in coöperation with Dr. Rudolf Schindler: "Benign tumor, probably a myoma, of the lower part of the anterior wall between lesser and greater curvature" (Fig. 10).

Patient refused operation.

X-ray July, 1938: "Films of the barium-filled stomach show irregular filling of the stomach in the pars media. Comparison with the previous x-ray records shows this defect to be similar to that noted at the last study although it occupies a slightly lower position on the lesser curvature, which suggests that it is inflammatory in origin and has extended slightly. We believe neoplasm could not be ruled out, however."

Follow-up September, 1939: (over two and one-half years after gastroscopic diagnosis): Patient continues to have intermittent heart burn and vague epigastric distress which are relieved by frequent feedings and alkalies. There is no loss of weight. The gastric contents have free acid. The stools are negative for occult blood. Operation is refused.

Summary of Case.—Benign tumor. Gastroscopy diagnostic. X-ray could show only abnormality in filling at the site of the lesion.

Case 6.—Unexplained hemorrhages (Fig. 11).

Mr. P. Z., aged forty-eight. History suggestive of ulcer began in 1924. There were ten hemorrhages (melena) from 1931 to 1939. X-ray examinations on many occasions showed both pyloric and duodenal ulcers. The patient was hospitalized on many occasions for rigid Sippy management. Mucin, aluminum hydroxide, magnesium trisilicate, parenteral injections, etc., were given with little if any improvement.

Surgery, May, 1938, reports: "Stomach negative. There was moderate induration in the head of the pancreas, which could not be differentiated from a duodenal ulcer. Because of the absence of any remarkable evidence of duodenal ulcer it seemed advisable to do a jejunostomy in order to put the stomach at complete rest."

Since operation, patient has had the same distress and already has had two additional hemorrhages (melena).

Because of the patient's failure to respond to medical management and "the absence of any remarkable evidence of ulcer" at operation, it was thought necessary to rule out other pathologic changes by gastroscopic examination.

Gastroscopic examination August 11, 1939: "Reddening of the mucosa with considerable exudation typical of superficial gastritis" (Fig. 11).

Summary of Case.—Unexplained hemorrhages. Suspicious symptoms of ulcer. Negative surgical exploration. Jejunostomy without relief. Gastroscopy showed gastritis with marked exudation, sufficient to account for patient's symptoms.

Case 7.—Indefinite x-ray findings (Fig. 12).

Mr. I. T., aged fifty-seven. Epigastric fullness, belching, occasional nausea and vomiting and attacks of acute upper abdominal pain began De-

cember, 1938. There was a loss of 20 pounds by May, 1939.

X-ray May 4, 1939: "The gastric antrum appeared to be somewhat more rigid than usual, but at occasional intervals was traversed by unusually deeply cutting, quite powerful peristaltic contractions throughout its entire length. Impression: Chronic hypertrophic gastritis involving the gastric antrum. One might well consider gastroscopic confirmation of this opinion, particularly in order to rule out the presence of an early gastric neoplasm."

Gastroscopic examination May 12, 1939: "The mucosa of the antrum presented a dull, sponge-like, velvety appearance with diminished highlights. Impression: Hypertrophic gastritis involving the antrum. No malignancy" (Fig. 12).

X-ray September 5, 1939: "On re-examination of the stomach and duodenum, conditions were found essentially quite identical with those observed on May 4, 1939. It appears, therefore, that the opinion expressed in May is correct."

Follow-up September, 1939: Patient is symptom-free on a bland diet.

Summary of Case.—Gastritis suspected by x-ray and gastroscopy confirmed the diagnosis of gastritis. Neoplasm ruled out by gastroscopy.

Discussion

Summarizing the usefulness of gastroscopy:

1. *Gastritis.*—The most valuable contribution of gastroscopy, so far, has been in the field of gastritis. The symptoms are varied, conforming to no definite syndrome, and the diagnosis cannot as a rule be made from clinical and laboratory examinations. Only the mucous membrane is involved and there are no defects of the stomach wall, hence the x-ray cannot usually make the diagnosis. In the large group of patients who complain of gastro-intestinal symptoms and in whom physical, laboratory and x-ray examinations are negative, many, undoubtedly, would be found to have some form of gastritis when examined by the gastroscope. Chronic non-specific uncomplicated gastritis, according to Schindler,⁹ is found in from 40 to 50 per cent of all patients examined with the gastroscope. Ten per cent of all massive gastro-intestinal hemorrhages are due to gastritis.

2. *Gastric Ulcer.*—Gastroscopy may give some very pertinent information, especially in finding small gastric lesions, in observing healing of gastric ulcers, and in differentiating between benign and malignant ulcerations.

The healing of ulcers can be observed very accurately. The gastroscopist can now see what the radiologist knew, namely that



- Fig. 1. Normal Stomach: Antrum with pylorus completely relaxed. Angulus appears as a parabolic curve.
- Fig. 2. Normal Stomach: Antrum with pylorus partially contracted.
- Fig. 3. Normal Stomach: Antrum with pylorus completely contracted. Angulus and musculus sphincter antri (latter appearing as a twisted cord) divide antrum from body of stomach.
- Fig. 4. Normal Stomach: Anterior wall with the delicate network of folds.
- Fig. 5. Normal Stomach: The greater curvature (left) shows network of folds. The posterior wall (right) shows thick parallel folds.
- Fig. 6. Benign ulcer over angulus (Case 1).
- Fig. 7. Ulcer at gastro-enterostomy stoma. The elliptical opening is the stoma. The left upper area shows hypertrophic gastritis (Case 2).
- Fig. 8. Ulcerative carcinoma of the greater curvature (Case 3).
- Fig. 9. Scirrhus carcinoma of the anturm (Case 4).
- Fig. 10. Benign tumor of the anterior wall (Case 5).
- Fig. 11. Chronic superficial gastritis (Case 6).
- Fig. 12. Chronic hypertrophic gastritis (Case 7).



the quick disappearance of a niche is due to the disappearance of edema and not to the complete healing of the ulcer. Though, complete healing may take place in from five to eight weeks, Palmer, Schindler and Templeton³ reported cases (observed gastroscopically) in whom healing has not been complete at the end of one and two years.

By gastroscopy one may differentiate benign from malignant ulcers. This is possible because as one views the living stomach, "the blood is circulating, a fact which makes the edge and often the floor of the malignant ulcer differ distinctly from those of benign ulcer."¹⁰ One can not always rely on the diminution in size of the ulcer crater by x-ray, since Schindler and Gold¹⁰ have shown that during the course of treatment a niche may become smaller during roentgen-ray observation, even though the lesion is malignant.

3. *Carcinoma*.—Already several case reports have demonstrated that a small, localized, non-ulcerative carcinoma, the type notoriously hard to detect by x-ray, can be very well seen by an experienced gastroscopist. In a few instances the gastroscopic picture was more accurate (microscopic examination) than x-ray, surgeon's and pathologist's gross diagnosis. Schindler and Gold¹⁰ explain it by "the high relief pattern and the brilliantly colorful appearance of the living tissue in the gastroscopic picture, due to the presence of circulating blood."

The scope can observe the degree of infiltration, secondary nodules, friability and extension of the upper edge of the lesion and hence may be more accurate in determining operability than any means we have heretofore possessed. This is extremely important information.

Peritoneoscopy can demonstrate meta-

static spread in the liver, omentum, etc. With these two new diagnostic aids, one now should be able to eliminate many exploratory operations which turn out hopeless.

Summary

The diagnosis of many gastric lesions is not, any longer, complete without the aid which gastroscopy can give. The procedure is safe and simple, but the interpretation of the various pictures seen through the scope requires experience. The findings must always be correlated with clinical and radiologic data.

Gastritis can be diagnosed with certainty by the gastroscope; it can only be suspected by clinical or x-ray examination.

Gastroscopy is indicated where gastritis is suspected, where a differentiation between benign and malignant ulcer must be made, where the extent and operability of malignant tumors is in question, in all cases where x-ray is inconclusive, where there is unexplained abdominal distress, hemorrhage, loss of appetite, et cetera.

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CEREBRAL ANOXIA AND ANESTHESIA*

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Now, bodies of men and of animals generally, are nourished by three kinds of nourishment, and the names thereof are solid food, drink, and wind. Wind in the bodies is called breath, outside bodies it is called air. . . . So great is the need of wind for all bodies that while a man can be deprived of everything else, both food and drink, for two, three or more days, and live, yet if the wind passages into the body be cut off he will die in a brief part of a day, showing that the greatest need for a body is wind. Moreover, all other activities of a man are intermittent, for life is full of changes; but breathing is continuous for all mortal creatures, inspiration and expiration being alternate. . . . Now I hold that no constituent of the body in any one contributes more to intelligence than does blood. So long as the blood remains in its normal condition, intelligence too remains normal; but when the blood alters, the intelligence also changes. . . . So if all the blood experiences a thorough disturbance, the intelligence is thoroughly destroyed. For learnings and recognitions are matters of habit. . . . So in one place the blood stops, in another it passes sluggishly, in another more quickly. The progress of the blood through the body proving irregular, all kinds of irregularities occur.

So breaths are seen to be the most active agents during all diseases; all other things are but secondary and subordinate causes.

—HIPPOCRATES "On Airs."

The relationship of "breaths" and blood circulation to cerebral function remains the same today as it was in the time of our great medical preceptor. Today, more of the details of the mechanisms involved in this relationship are known to us, and this ancient knowledge will be discussed in the light of some recent additions to our knowledge of man-made breath disturbances resulting from a practical humanitarianism. It is almost one hundred years since C. W. Long and Horace Wells demonstrated the use of sulphuric ether and nitrous oxide as anesthetic agents in surgical operations. That the administration of anesthesia is not without its dangers, is attested by the accidents and deaths reported in the medical and dental literature throughout the period of its use. It is especially significant that the grave importance and responsibility of the anesthetist has been formally recognized by the creation of this society which I have the honor of addressing today. Whereas, formerly, the anesthetist was a simple helper to the surgeon, today he is the surgeon's indispensable co-worker who shares equally with him the heavy responsibility for the patient's safe journey into and from unconsciousness. The modern anesthetist shares this responsibility with the surgeon in much the same manner that the chief engineer shares the responsibility of an ocean liner with the captain of the ship. Both may have the same number of service stripes and the word of one is law in the engine room, while that of the other is law on the bridge. Each defers to the opinion

of the other in matters relating to their respective domains. No longer, as in the old sailing days, is the captain supposed to be omnipotent and solely responsible. The ever increasing respect with which the anesthetist is regarded today arises from the dangers and difficulties which beset the practice of his profession and the recognition by his surgical colleagues of the fact that a highly specialized aptitude and knowledge are required to cope with these dangers.

The innovation of anesthesia produced a great problem for the anesthetist, that of anoxemia and its attendant devastating effects of cerebral anoxia. As Haldane stated, "Anoxemia not only stops the machine (the brain) but wrecks the machinery." The various mechanisms by which this delicate machinery is wrecked may be classified as *anoxic*, *anemic*, *stagnant* and *histotoxic* anoxia.

A simile used by Barcroft will be modified somewhat to illustrate the various types of anoxia resulting from anesthesia. Oxygen may be represented as milk, the red blood cells as servants, and the cerebral cells as the family at the table. In *anoxic anoxia* the supply of milk is either: too dilute to support life; or, inadequate to satisfy the inordinate appetite of the family. In *anemic anoxia* the servants are too few, or have their hands too full to carry milk to the family at the table. In *stagnant anoxia* the servants are too slow in carrying the milk to the table as needed. In *histotoxic anoxia* the family is too intoxicated to use the milk set before it.

In order to obtain safe, and at the same

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time adequate, anesthesia there must be rapid integration of various vital systems to meet the unusual and trying demands suddenly placed upon the individual. If any one system fails to change its rhythm to meet the emergency, disaster may result and, since every factor in the integration is altered to suit a changed environment, it is impossible to place the blame solely on any one factor. Similarly, when adjuvants such as pre-operative drugs are used; if the condition of the patient changes during operation, as from blood loss; or, if any one or more of many controllable or non-controllable integrations fail to occur, it is impossible to assign the fault to only one factor, should disaster result. For example, if a case of so-called "ether convulsions" is carefully analyzed, it will be found that there is usually a combination of factors responsible for the occurrence of cerebral anoxia with its clinical manifestation of convulsions. The increased oxygen demand in the patient with fever, or during hot weather; a low blood pressure; a low red cell count; depressing pre-operative medication; the asphyxia incident to nitrous oxide induction; these are all as important in the production of the dreaded clinical picture as the administration of ether itself. It would seem more fitting, therefore, to refer to "anoxic convulsions" rather than to "ether convulsions" in such cases.

Cases reported in the literature with the diagnosis of "liver death" would seem, on closer scrutiny, to be more properly classified as examples of cerebral anoxia. A combination of asphyxial factors is usually present—anoxic anoxia associated with anesthesia pushed to the point of obtaining upper abdominal relaxation, especially if nitrous oxide is used; catabolic anoxia from pre-operative fever; anemic anoxia secondary to hemolysis and diminished red blood cells; neurohumeral anoxia of jaundice or dehydration; and histotoxic anoxia from drugs which depress the respiratory centers.

The postoperative course in "liver death" is quite typical of the cerebral dysfunction observed with anoxia—hyperthermia, restlessness, increasing coma and death. Acute degenerative liver lesions are frequently found in fatal cases of cerebral anoxia. Since, however, the clinical picture in "liver death" is one of acute nervous tissue disintegration and is not peculiar to any one type

of operation, it would seem more practical to describe these cases under the general heading "cerebral anoxia" with attention directed toward asphyxial factors rather than the liver or other anoxic organs.

The author has had occasion to observe several hundred individuals who exhibited evidence of disturbed cerebral architecture, probably as a result of an asphyxial episode associated with the administration of an anesthetic agent. Some of these patients had been given a general, spinal or local anesthetic for relief of pain during a surgical procedure. Others had been anesthetized through the placental circulation, the mother receiving anesthesia to abolish the pain of childbearing. Most of the cases in which severe neurological symptoms appeared following anesthesia were thought to fall into the anoxic anoxia group. In a few of these cases mechanical obstruction of the air passages played a part. One child, in whom the intraspinal portion of a mediastinal tumor was being removed, had convulsions on the table and died several hours later with the symptoms of generalized cerebral dysfunction characteristic of cerebral anoxia. The trachea had been constricted and displaced by the tumor and short periods of cyanosis were noted several times prior to the onset of convulsions. No doubt the intratracheal inhalation of the nitrous oxide-oxygen-ether mixture was interfered with, in this instance, by the mechanical obstruction to the trachea.

Cyanosis, which is a practical but rather uncertain indication of asphyxia, was present in many of the cases during operation. The absence of this safety guide accounts for the increased hazard of nitrous oxide induction in the negro. With certain conditions, one of which is the lowering of the pressure of CO_2 in the alveolar air after forced breathing, "there may be considerable oxygen want in the tissues (anoxia) though there is no anoxemia and the blood is almost as red as usual" (Haldane). Under these circumstances the absence of cyanosis may be most misleading in the proper estimation of cerebral oxygen requirement. Unless the anesthetist can recognize cerebral asphyxia in the absence of cyanosis and remedy the situation, the consequences may be grave. In the case of one white child who died with spasticity and convulsions four days after an elective ap-

pendectomy, there had been a discussion in the operating room regarding the cyanotic color of the patient, but it was decided that the color of the child under nitrous oxide-

conscious due to cerebral anoxia. It is, therefore, evident that asphyxia in itself is an effective, although not very safe, anesthetic agent in common use.

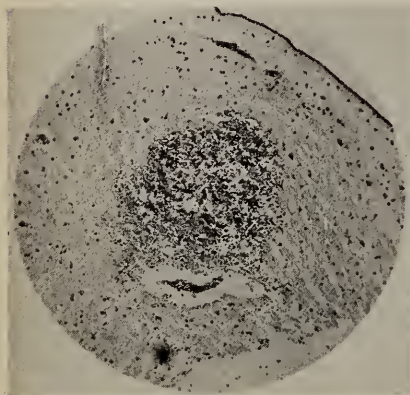


Fig. 1. Section of hippocampus with temporal horn (cresyl violet). Large subependymal bleedings were found, especially beneath the temporal horns of the ventricle. These bleedings are characterized by diapedesis, not by the rupture of vessel walls. Most of these hemorrhages have a perivascular arrangement, some being produced by a confluence of such bleedings. The subependymal glial cells show a definite hypertrophy with formation of protoplasmic processes in this region.

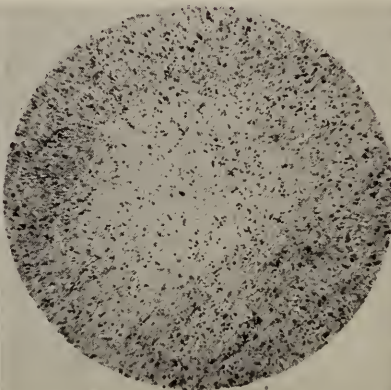


Fig. 2. Section of basal ganglia—putamen (H. & E.). A well circumscribed area is seen which takes a paler stain than its surroundings. In the center of this area there is a looser arrangement of the ground substance. In the more peripheral parts of this devastation area, there are numerous proliferated astrocytes with the production of glial fibrils. The nerve cells in the devastation area have entirely disappeared, while in the surrounding normal parts the remaining nerve cells

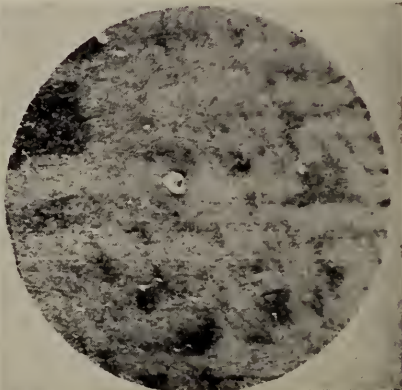


Fig. 3. Devastation areas in cerebral cortex of a patient who survived thirty days after asphyxia associated with nitrous oxide-oxygen anesthesia.

are small. The glial hypertrophy indicates that the beginning of the degenerative process is of several days' duration.

oxygen-ether anesthesia was due to the blue operating room lights rather than to actual cyanosis of the patient. Postmortem examination revealed the typical cerebral lesions associated with anoxia (Figs. 1 and 2).

For the most part, the disasters in our series were suspected of being the result of an actual oxygen lack when the anesthesia was given. With a mixture containing 14 per cent oxygen and 86 per cent nitrous oxide, patients still wince when they are hurt. Even with this inadequate mixture, the patient has been placed in an atmosphere corresponding to an elevation of 12,000 feet, at which height definite signs of altered cerebral function are apparent under ordinary circumstances if the change is rapidly made. It is, then, quite evident that if such painful surgical procedures as the extraction of teeth, operations in the abdomen, or on the extremities, are to be carried out with an anesthetic mixture of nitrous oxide and oxygen, some other agent must be added, such as ether, chloroform, or asphyxia. A 10 per cent to 6 per cent oxygen pressure in the inspired air is equivalent to the atmosphere at an altitude of 24,000 to 35,000 feet, at which height a person is uncon-

The following case has been selected as an example of the effects of anoxic anoxia associated with nitrous oxide-oxygen anesthesia:

A thirty-four-year-old woman, who had apparently been in good health, was advised by her dentist to have a lower molar extracted. No pre-operative drugs were given before anesthesia with nitrous oxide-oxygen was initiated but the patient struggled so under the early induction that the anesthesia was stopped and local injection advised. However, at the patient's request, nitrous oxide-oxygen anesthesia was again administered and the tooth extracted. When the mask was removed at the end of the procedure, the patient struggled wildly and lashed about. She remained stuporous and the physician called advised hospitalization. When admitted the patient was having spasm-like contractions of all extremities at intervals of three or four minutes. During these spasms the body was rigid, the eyes rolled upward and the thumbs were clenched in the fingers, the arms being rotated inward. She was noisy and screamed at intervals during the first day, but did not speak. Between spasms the eyes appeared to follow persons about the room although there appeared to be no intelligence, suggesting hysteria to several observers.

The generalized muscle spasms and ocular crises continued for six days, the patient making no sound after the first day. All extremities were spastic. Extensive studies of the blood, spinal fluid and urine were all negative. There was never any return of consciousness, although after six days the patient's condition changed, the extremities became flaccid, the spasmodic movements and ocular crises ceased. No deep or superficial reflexes were obtainable. Feeding was by nasal tube. The condition of the

patient remained stationary until death thirty days after the tooth extraction. A complete autopsy was done, which revealed nothing remarkable aside from the cerebral findings.

The author is greatly indebted to Dr. K. L. Scharenberg and Dr. N. Malamud, of the Laboratory of Neuropathology at the University of Michigan, and Dr. Louise Eisenhardt, Director of the Brain Tumor Registry of the Harvey Cushing Society, for their kindness in examining the tissues in this case.

Dr. Malamud's findings: Gross report.—The cortex, throughout the brain, appears atrophic with pronounced hyperemia and patchy areas of spongy and necrotic change. Two tumors were found within the brain substance: one, the size of a large walnut, was found in the right cerebellar hemisphere, circumscribed, solid in appearance, and of grayish color; a smaller one, the size of a lima bean, was found in the left cerebral hemisphere within the white matter of the parietal lobe. There was a suggestion of bilateral pyramidal tract degeneration in the medulla.

Histologic report.—The case presented two different pathological conditions: one of diffuse changes of the nervous tissue, probably related to the nitrous oxide anesthesia, revealed by degeneration of the parenchyma with diffuse loss of cells, pronounced sclerosis of those remaining and predominantly affecting the upper layers (third layer of the cortex). The subcortical layers showed characteristic pronounced capillary hyperemia spreading in a laminar fashion. There was no outspoken glial reaction. The white matter showed swelling of the oligodendroglia and moderate hyperemia. The other condition was that of two metastatic tumors (previously described), which showed the characteristics of a spindle cell sarcoma with pronounced degeneration and of unknown origin. Diagnosis: Diffuse cortical degeneration (etiology nitrous oxide?) and several metastatic sarcomata of unknown origin.

Dr. Eisenhardt reported the areas of cortical degeneration as showing the microscopic picture typical of that described in cases of anoxemia, that is, a marked ischemic necrobiosis and extensive demyelination (Fig. 3).

While the neuropathologist can report only what he sees under the microscope, it is most significant that in those cases in which death has been delayed a few hours or more following nitrous oxide asphyxia, there can be demonstrated a diffuse degeneration of brain tissue. The determination of the etiology of this brain change must be left to the clinician who observes these cases while still living and is familiar with all the circumstances of the individual case. Inasmuch as asphyxia of some degree was observed or could be implied in all fatal or damaged cases seen by the author or reported by others following nitrous oxide anesthesia, it seems reasonable that if the brain lesions are identical with those found with anoxia from any cause, the effect is due to the asphyxia rather than to a toxic agent.

The unexpected finding of two small neoplastic lesions in silent brain areas of the

patient whose case has just been presented leads us to speculate on the rôle which they played. Autopsy revealed no primary neoplasm elsewhere in the body and the patient apparently was in very good health before the asphyxial episode. Did these unidentified neoplastic nodules set the stage for the anoxia which resulted when the nitrous oxide was given?

A catabolic type of anoxic anoxia also plays an important part in cerebral alterations associated with anesthesia. Although the oxygen supply may be normal, intrinsic or extrinsic factors may increase the demand of the tissues to the point where this demand cannot be fulfilled. In these cases, drugs which depress the respiratory mechanism are thought to inhibit the integration between increased oxygen demand and the available oxygen supply.

Such a situation was suggested in the following case:

A forty-eight-year-old housewife was seen following the removal of a toxic thyroid adenoma with avertin anesthesia. This patient had a severe hyperthyroidism, but with bed rest her basal metabolic rate was lowered to plus 27. She was given 90 mg. of avertin by rectum. Following operation the patient was extremely restless, did not respond and was dyspneic. Spasticity of all extremities was noted and generalized convulsions occurred eight hours after operation. The postoperative temperature, as in most of these cases of cerebral anoxia, was elevated for four days, going to 103.6° on one occasion. A left hemiparesis developed on the second day. On the fourth postoperative day the patient roused sufficiently to talk with her husband, although she was still very spastic. Convulsions and coma recurred and she died at the end of two weeks, markedly cyanotic even in an oxygen tent.

For every degree of fever there is a corresponding increase of at least 7 per cent in oxygen demand. Several of the cases under discussion were children with high temperatures at the time of operation who began having generalized convulsions immediately following operation or on the operating table during nitrous oxide-oxygen-ether or ether anesthesia. Here it is probable that the increased demand of the tissues for oxygen, due to the fever, could not be adequately met by a drug-depressed respiratory center laboring under a diminished oxygen intake.

Extrinsic causes of anoxic anoxia, such as unusually hot weather, take their anesthetic toll. The records of three mothers, who died with their newborn infants on one July day when the high temperature was 100°, showed that in each case the patient in labor had a normal temperature on ad-

mission to the hospital. With the effect of the administration of large doses of analgesic drugs superimposed upon the oxygen demand due to the unusual heat, the situation could not be met by the drug-depressed respiratory center and these patients all died with signs of acute cerebral disintegration and extreme terminal temperatures.

The anemic and stagnant types of anoxia are closely related, although their mechanisms differ. It is of utmost importance to keep up the blood volume during operative procedures in order to avoid anoxic brain changes. In the integration necessary for adaptation to lowered blood volume and anemia, as in cases of severe operative hemorrhage, the amount of oxygen supplied with the anesthetic must be increased to meet the changing conditions in the patient's internal environment or cerebral tissue will succumb. It is especially important to ascertain the number and state of the red blood cells and the blood pressure in patients to be operated on with rectal or intravenous agents, so that proper anesthetic integration is possible.

In one case a pre-operative red blood count of 2,000,000 had been overlooked in a patient who received a dose of 80 mg. of avertin. This patient never roused and expired the second postoperative day with symptoms of respiratory failure. It was suspected that there had not been enough oxygen carriers in the blood to keep the cerebral tissue alive when the physiologic function of the brain stem was inhibited by a comparatively light dose of avertin.

Another factor in anesthetic integration is the use of pleonectic substances such as sulfanilamide, which, in full dosage, may tie up one-third of the red cell oxygen carriers by fixing them with methemoglobin and thus produce a relative anemic anoxia.

A nine-year-old boy, seen because of coma, spasticity, convulsions and ataxia following mastoidectomy, showed definite signs of cerebral and cerebellar degenerative changes associated with anoxia until death on the tenth postoperative day. A full dose of sulfanilamide to the point of cyanosis had been given to this toxic child whose temperature was ranging around 103° for twenty-four hours preceding operation. In spite of what was thought to be an ample oxygen supply in the nitrous oxide-oxygen-ether mixture, the color of the blood remained dark throughout the operation. The child did not rouse and all extremities became rigid. Generalized convulsions began four hours after the anesthesia had been discontinued. After three days of unconsciousness, there was an apparent improvement for several days but the patient suc-

cumbed with a typical clinical picture of diffuse cerebral and cerebellar disintegration.

In considering the correlation of anemic and stagnant anoxia with anesthesia it is obvious from the cases used as illustrations that the surgeon and anesthetist must cooperate fully to combat anoxia. The advantages of any medication which produces a real or relative anemia must be carefully weighed against its disadvantages when anesthesia is contemplated.

The chief importance of *histotoxic anoxia* in relation to anesthesia lies in pre-operative drugging. The effect of a drug on cerebral tissues has a definite relationship to the amount of anesthetic agent which it is necessary to use. Excessive pre-operative medication may set the stage for cerebral anoxia because the respiratory and cardiac centers, depressed by drugs, cannot function properly to meet varying oxygen demands of cerebral tissue during anesthesia. For the surgeon to order a pre-operative drug regardless of what anesthetic is to be used is as logical as trying to fit a Ford body onto a General Motors chassis. Every pre-operative barbiturate or narcotic should be ordered with a thought as to its place in the whole anesthetic integration which is required. Fetal asphyxia induced by excessive maternal drug doses which depress the respiratory center, with superimposed inhalation anesthesia, may produce a child whose brain is badly and permanently damaged, mainly through the mechanism of *histotoxic anoxia*.

Any imbalance in the neurohumoral chemistry of cerebral cells must be taken into account if disaster is to be avoided when anesthesia is required in cases in which such imbalance exists. Dehydration, hypoglycemia or hyperglycemia, deficiencies in calcium, potassium, or phosphorus, can inhibit the ability of the cell to utilize oxygen and in this way initiate a destructive anoxia (Jowett and Quastel). The utmost vigilance must be exercised in weighing the added anoxic insult of oxygen deficient anesthetics and pre-operative drugs which depress brain stem function in the alcoholic or dehydrated patient, in the diabetic patient or, especially, the diabetic patient who has received insulin pre-operatively.

The author has been impressed by the number of cases in which cerebral degenerative changes date directly to the adminis-

tration of spinal anesthesia. The symptoms for which the patient was operated on may have disappeared and their place taken by an entirely new set of complaints relating to the brain. In five patients with cerebral changes following spinal anesthesia, seen recently by the author, large doses of pre-operative medication had been given in each instance.

A woman, aged thirty-six, was referred because of her complaints of persistent headache, nervousness, character change, insomnia and crying spells. She had been perfectly well until two years previously when she had a sudden abdominal pain. She was operated on under spinal anesthesia and an ovarian cyst removed. There was no recurrence of the abdominal pain. From this time on, however, she was a changed person. She began to worry continuously and, in spite of long rests in Florida, did not improve. She had frequent headaches and crying spells, was irritable and could not tolerate noise or alcohol. She had consulted many physicians because of her distressing symptoms without relief, the usual diagnosis being "anxiety neurosis" or "hysteria." Neurological examination was completely negative. A review of the circumstances surrounding the spinal anesthesia shows that at nine o'clock the morning of operation she was given nembutal, grs. $4\frac{1}{2}$; at ten o'clock, morphine gr. $\frac{3}{4}$, and scopolamine gr. $1/100$; she was then given 150 mgs. of novocaine intraspinally with satisfactory anesthesia for the removal of the ovarian cyst. There are no blood pressure readings recorded on the chart.

Inasmuch as there is frequently a decided drop in the blood pressure when spinal anesthesia is used, thus setting the stage for a stagnant anoxia, it follows that the addition of histotoxic agents in the form of excessive pre-operative medication may cause a cerebral oxygen lack of sufficient intensity to produce the cortical degeneration responsible for altered personality. In one arteriosclerotic man of fifty-eight years, who received morphine gr. $\frac{1}{4}$, hyoscine gr. $1/100$, nembutal grs. 3, just before a spinal injection of 100 mg. novocaine for anal fistulectomy, a cerebral thrombosis with hemianopsia developed immediately after operation with progressive degenerative symptoms until death at the end of two weeks.

Another patient was seen who was hemiplegic, unconscious and in shock following prostatectomy, the anesthetic having been 60 mg. of intraspinal novocaine. Just previous to operation, morphine gr. $\frac{1}{4}$, and nembutal grs. $1\frac{1}{2}$, were given. Systolic pressure, normally around 130, registered 90 shortly after the operation, which had been attended by considerable blood loss. The patient recovered, but with some neurologic sequelæ. Since thrombosis of cerebral ves-

sels is a frequent finding in fatal cases of cerebral anoxia when neuropathologic studies are made, it would appear that the added histotoxic effects of pre-operative medica-

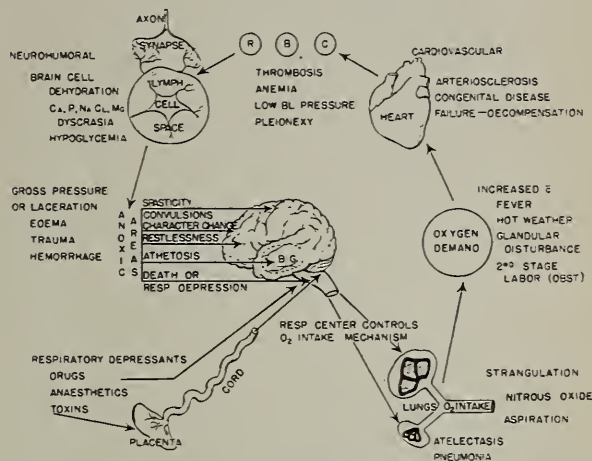


Fig. 4. A schematic representation of various anoxic factors which are important in anesthetic integration.

tion must be carefully considered in relation to the stagnant anoxia which frequently accompanies spinal anesthesia.

It is the impression of the author that degenerative changes in the cerebral cortex, which may follow anesthesia, are due to the anoxia produced by the drugs and anesthetic agents rather than to the agents themselves. It appears that in rare cases even local anesthesia may set up a histotoxic anoxia, leaving cerebral devastation in its wake.

In 1921, an eighteen-year-old girl had a tonsillectomy done following local injection of $\frac{1}{2}$ per cent novocaine. Twenty minutes after operation she became extremely restless and vomited. Dyspnea and cyanosis rapidly developed and, in spite of oxygen administration, the patient remained markedly cyanotic and unconscious for six hours, after which she gradually improved. Since this asphyxial episode she has had an entire personality change which has persisted for seventeen years. Numerous sinus operations and several major abdominal procedures have failed to relieve the frontal headaches and atypical pains of which she complains. Her judgment is faulty and her conduct erratic. There is definite evidence of frontal lobe deterioration and this young woman is now under psychiatric observation in an institution.

Whatever the anesthetic agents which may play a part, there can be little doubt that asphyxia to the point of cerebral anoxia is a matter for serious consideration by those involved in the use of anesthesia.

Summary

The adaptation to and recovery from anesthesia require a complex integration of

the internal environment of the individual if cerebral anoxia, with its complication of death or permanent cerebral damage, is to be avoided. Cases of "ether convulsions" and "liver death" may more properly be classified as examples of cerebral anoxia. The precise rôle of anoxic, anemic, stag-

nant and histotoxic anoxia must be carefully considered in the execution of safe and satisfactory anesthesia (Fig. 4).

* * *

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LUETIC POLYNEURITIS

A Case History

AARON DUBNOVE, B.A., M.D.

DETROIT, MICHIGAN

Mrs. * *, a widow, aged fifty-two, noticed the first symptoms of her present illness about February 22, 1938. Her family history, as given at the time of her first consultation, and her own past history were negative. Her posture, while at work was faulty; for hours she used to sit on a hard chair with her legs crossed in such a way that her left leg was resting on her right knee. On or about February 22, 1938, she began to experience a pulling sensation in the posterior upper portion of her right hip. She did not consider her condition serious enough to warrant a physical examination, but availed herself instead of all the simple remedies suggested by her friends (among them were five medical men) who suggested various analgesics without giving her the benefit of a study of her case. Meanwhile her condition was steadily growing worse. By the end of April her entire right lower extremity felt numb and heavy with a sensation of pins and needles. She had to quit her work.

On the advice of her employer, she consulted an osteopath and remained under his care from April 30, 1938, to September 29, 1938, during which time she received 103 diathermy and infra-red treatments and massages; she had the right sciatic nerve stretched, without any improvement. Then, evidently under the impression that her gall bladder might be at fault, her physician made her eliminate from her diet at first fried food, fats, meats and then even starchy food. She was allowed fruit juices and certain fruits. Active catharsis to stimulate choleresis was resorted to (if there was any thiamin left in her system this treatment had deprived her of it). It is likely that the resulting athiaminosis aggravated her neuritis.

On September 29, 1938, I was consulted for the first time when she was found to be suffering from a well developed polyneuritis affecting her entire right lower extremity and extending upwards until it had involved almost two-thirds of her trunk. On the posterior aspect of her right hip at the junction of the upper two-thirds and lower one-third there was a very tender, painful spot. There seemed to be shortening of her right leg with a compensatory scoliosis. She was unable to stand erect; her body was bent forward. Her pupils reacted normally to light and accommodation. Urine findings were negative for albumin and sugar.

A diet rich in vitamin B was prescribed, to be taken along with her fruits and fruit juices, also brewers yeast tablets and capsules of vitamins A and D. In addition, a subcutaneous injection of 1,200 international units of thiamin chloride was administered. The only analgesics allowed her were hot, moist applications, and the use of a small infra-red lamp. The thiamin injections were continued during subsequent calls; the dose varied from 1,200 to 4,000 int. units; 1,500 units seemed to be the optimum dose. Slight transient reactions followed within a few hours after the thiamin injections whenever the doses were excessive.

Progress was steady though slow from the beginning of the treatment. Her pains and discomfort

gradually lost some of their severity and soon she was able to assume a somewhat more erect posture and walk a little. This enabled her, hitherto bedridden, to come (in an automobile) to my office for her treatments and to receive three office treatments per week for the price of two house treatments.

About that time, there appeared in the *Journal of the American Medical Association* an abstract of an article calling attention to the synergistic action of thiamin chloride and acetylcholine hydrochloride. Being anxious to hasten the patient's recovery, I gave her on November 30, 1938, an injection of 1,800 int. units of thiamin and 10 minutes later an initial dose of 0.03 grams of acetylcholine chloride. The dose of the latter drug was increased gradually until a maximum of 0.1 gm. was reached. No severe reaction was encountered until December 4, 1938, when I gave her in one injection a mixture of 2,400 i.u. of thiamin chloride and 0.1 gm. of acetylcholine hydrochloride. A violent reaction followed and the patient was very miserable up to December 6, 1938. I gave up the use of acetylcholine.

Then, in spite of the emphatically negative history she gave me, I had her blood tested and found out that her Kahn test was four plus. I advised her to take injections of neoarsphenamine and bismuth, in addition to the thiamin but she refused to take any of the arsenicals. The best I could do under such rather unusual circumstances was (1) to give her a series of intramuscular injections of iodo-bismutol and thiobismol, (2) to prescribe Hg inunctions and potassium iodide drops, and (3) to keep up the thiamin and the hot applications.

By the middle of February, her pains had left her completely, her gait had improved and there were no tingling and no pulling sensations; and her numbness was gone. She got ready to go back to work, but this improvement was too good to last and she had a relapse, and a bad one at that, within a week; all the annoying symptoms of her disease came back. Repeated attempts to get her to con-

(Continued on page 1105)

A SURVEY OF THE IODIZED SALT OBTAINED, ON THE OPEN MARKET, FROM VARIOUS DISTRICTS OF THE STATE OF MICHIGAN, 1939*

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After iodized salt was placed on the market,⁵ advertising itself as containing between .01 and .02 per cent of sodium iodide or its equivalent, it was expected and hoped that systematic examinations of the product of the various manufacturing concerns would be carried out. However, no examining board of standardization was appointed. It was thought by some that those in charge of the application of the pure food law would automatically take this under consideration. The checking of the iodide content of the salt was desired alike by the Committee and the salt manufacturers.

The earliest check on the iodide content of iodized salt was made in the laboratories of one of the salt producers, the second by the Department of Agriculture, Bureau of Chemistry, Washington, and the third by the Director of Laboratories, Michigan Department of Health, Lansing.

First Survey (Michigan, 1926)

Results of the first survey were submitted to the Committee August 3, 1926. Ten different brands from the open market were analyzed. They are of considerable interest as they illustrate the prediction of the Committee^{1,2} that there probably would be difficulty from a physical standpoint in bringing about a product of uniform iodide content, and that by accepting a minimum of .01 per cent and a maximum of .02 per cent there would be more likelihood of the content not going below .01 per cent, the amount originally recommended.

By reference to Table I, it will be seen that, with the exception of two manufacturers, all brands ran low in iodide content. In Brand F the content was found to be above .02 per cent in nine of the fifteen samples examined, and as high as .03 per cent in three samples. In Brand J the content varied quite consistently between .018 per cent and .02 per cent, the highest content being .023 per cent. However, one manufacturer's product (D) did not average .01 per cent. In the low groups (A, B, C, D, E, G, H, and I) there were more samples running .01 per cent and above than below that amount.

*Report No. 4 for the Iodized Salt Committee of the Pediatric Section of the Michigan State Medical Society. From the Department of Pediatrics and Infectious Diseases, University of Michigan Hospital. This is a report of the iodide content found compared with the iodide content claimed, together with an investigation of the distribution of iodide throughout the package and of the influences that might alter the iodide percentage of the salt.

TABLE I. THE IODIDE CONTENT OF SIXTY-THREE
SAMPLES OF IODIZED SALT REPRESENTING
TEN DIFFERENT BRANDS

First Survey—Michigan, 1926
Results Figured as Sodium Iodide .02% being
the Equivalent to .0222% Potassium Iodide

Manu- facturer	% Sodium Iodide	Manu- facturer	% Sodium Iodide
A	.008	G	.015
A	.010	G	.006
A	.012	G	.012
A	.012	G	.012
A	.013	G	.010
A	.014	G	.006
A	.010	G	.006
A	.010	G	.010
A	.010	G	.011
A	.010	G	.010
B	.012	H	.014
C	.008	I	.010
D	.008	I	.013
D	.006	I	.008
D	.008	I	.012
D	.012	I	.015
D	.012	J	.020
E	.008	J	.018
E	.008	J	.021
E	.018	J	.018
E	.010	J	.020
E	.012	J	.019
F	.028	J	.022
F	.030	J	.023
F	.018	J	.020
F	.024	J	.018
F	.024		
F	.018		
F	.030		
F	.029		
F	.022		
F	.030		
F	.018		
F	.026		
F	.018		
F	.018		
F	.016		

The following table arranges the 63 samples according to the percentage of iodide found:

TABLE II. THE IODIDE CONTENT OF SIXTY-THREE SAMPLES OF IODIZED SALT ARRANGED ACCORDING TO THE AMOUNT OF IODIDE FOUND

First Survey—Michigan, 1926

Number of Samples Examined	Percentage of Iodide Found
4	.006
7	.008
10	.010
1	.011
9	.012
2	.013
2	.014
2	.015
1	.016
9	.018
1	.019
3	.020
1	.021
2	.022
1	.023
2	.024
1	.026
1	.028
1	.029
3	.030
63	

Second Survey (Washington, 1926)

The results of the second survey done at Washington were submitted to the Committee August 19, 1926. The analyses were accordingly made at practically the same time as those of Survey 1. Sixty-four samples, representing the products of eighteen manufacturers, were examined. The results are recorded in Table III. The figures in the last column represent the variation from the quantity of iodide declared on the label.

There were only eight samples in which sodium iodide was claimed to have been added. In one of these, no iodide was found; in the remaining seven, the iodide varied from .018 per cent to .05 per cent, an average of .031 per cent. Of the remaining fifty-six samples in the series, three were marked "Iodized," potassium iodide was found in two, the other contained no iodide. In four samples it was not clear from the label which iodide was used; but in the remaining forty-nine samples it is definitely recorded that potassium iodide was added. In these the iodide varied from

TABLE III. THE IODIDE CONTENT OF SIXTY-FOUR SAMPLES OF IODIZED SALT REPRESENTING EIGHTEEN DIFFERENT BRANDS

Second Survey—Washington, 1926

Manufacturer Number	Quantity of Iodide Declared on Label %	Quantity Iodide Found	Variation from Declared Quantity %
1	0.05 NaI.	0.05 NaI	0
1	"	.047	-6
1	"	.045	-10
2	.02 NaI.	.02	0
2	"	.02	0
2	"	.018	-10
3	"	.023	+15
4	.02 KI	.015 KI	-25
4	"	.009	-55
4	"	.008	-60
5	"	.028	+40
5	"	.029	+45
6	.022 KI	.016	-27
6	"	.014	-36
6	"	.013	-41
6	"	.018	-18
6	"	.027	-23
6	"	.026	+18
6	"	.011	-50
6	"	.013	-41
6	"	.019	-14
7	.023 KI	.016	-30
7	"	.017	-26
7	"	.017	-26
7	"	.012	-48
7	"	.011	-52
7	"	.011	-52
7	"	.022	-4
7	"	.024	+4
7	"	.020	-13
7	"	.015	-35
7	"	.015	-35
7	"	.014	-39
7	"	.0166	-28
7	"	.011	-52
7	"	.012	-48
7	"	.011	-52
8	.02 KI	.013	-35
8	"	.012	-40
8	"	.006	-70
8	"	.005	-75
9	.02	.012	-40
9	"	.013	-35
10	"	.011	-45
10	"	.016	-20
11	"	.048	+140
12	"	.011	-45
12	"	.010	-50
13	"	.0021	-90
14	.02 I (KI?)	.013	-35
14	"	.013	-35
14	"	.017	-15
14	"	.014	-30
15	.02 KI	.010	-50
15	"	.009	-55
16	"Iodized"	.000	—
16	"	.032 KI	—
16	"	.035	—
17	.02 NaI	.000	—
18	.023 KI	.017 KI	-26
18	"	.018	-22
18	"	.018	-22
18	"	.017	-26
18	"	.016	-30

.005 per cent to .048 per cent, average .0174 per cent; and in five it was below the originally required amount of .01 per cent. In Table IV the samples are arranged according to the amount of iodide found.

TABLE IV. THE IODIDE CONTENT OF SIXTY-FOUR SAMPLES OF IODIZED SALT ARRANGED ACCORDING TO THE AMOUNT OF IODIDE FOUND

Second Survey—Washington, 1926

Number of Samples Examined	Percentage of Iodide Found
2	.000
1	.0021
1	.005
1	.006
1	.008
2	.009
2	.010
7	.011
4	.012
6	.013
3	.014
3	.015
4	.016
1	.0166
5	.017
4	.018
1	.019
3	.020
1	.022
1	.023
1	.024
1	.026
1	.027
1	.028
1	.029
1	.032
1	.035
1	.045
1	.047
1	.048
1	.050

In one plant where a careful laboratory control of their salt was maintained, data were submitted to the Department of Agriculture, Washington, showing an average variation of 10 per cent from the declared quantity of iodide, in twenty samples collected over a period of three weeks. The maximum variation from the declared amount was 22 per cent.

Third Survey (Madison, Wis., 1929)

Dr. M. Starr Nichols,⁴ using the Kelly and Husband method, examined fourteen packages of iodized salt for their iodide content. These packages were known to have been standing for nine months. His figures

are presented in Table V. The third column is arranged to correspond with the other tables in this report.

TABLE V. THE IODIDE CONTENT OF FOURTEEN SAMPLES OF IODIZED SALT

Sample	Amount of Sodium or Potassium Iodide Claimed %	Amount Found After 9 Months %	Variation From Declared Quantity %
A	0.05	0.034	—32
B	0.02	0.017	—15
C	0.02	0.013	—35
D	0.02	0.026	—
E	0.023	0.0105	—54
F	0.02	0.008	—60
G	0.02	0.011	—45
EE*	0.023	0.015	—35
H	0.0222	0.017	—23
EEE	0.023	0.018	—22
AA	0.05	0.042	—8
FF	0.02	0.029	—
EEEE	0.023	0.008	—65
K	0.02	0.0012	—94

*Samples with more than one letter indicate same brand purchased at different localities.

Fourth Survey (Michigan, 1929)

William C. Geagley³ reports the analyses of nineteen packages of iodized salt from the Department of Agriculture, Lansing, Michigan, from which the following table is constructed.

TABLE VI. THE IODIDE CONTENT OF NINETEEN SAMPLES OF IODIZED SALT

Sample	Iodide Claimed %	Iodide Found %	Variation From Declared Quantity %
A-59	.02	.002	—0.18
J-420	.02	.019	—0.01
V-641	.02	.02	—
Y-81	.02	.007	—0.13
H-1	.02	.005	—0.15
A-58	.02	.014	—0.06
V-643	.02	.017	—0.03
J-422	.02	.0026	—0.174
A-55	.02	.019	—0.01
V-642	.02	.01	—0.01
J-419	.02	.0153	—0.047
Y-79	.02	.0152	—0.048
A-60	.02	.018	—0.02
J-418	.02	.018	—0.02
V-652	.02	.021	+0.01
A-56	.023	.018	—0.05
Y-78	.02	.0133	—0.067
J-421	.023	.016	—0.07
V-660	.02	.0184	—0.016

Fifth Survey (Michigan, 1936)

The results of the fifth survey were submitted to the Committee by C. C. Young, D.P.H., Director of Laboratories, Michigan Department of Health,³ January 6, 1936.

The samples of salt on which analyses are reported were collected by the field inspectors of the Michigan Department of Agriculture, Food and Drug Division, as official samples. Twelve different brands were examined. All of these salts contained some iodide but the content varied greatly from that claimed on the label. This variation, they thought, may have been due to inaccuracy in manufacture (mixing) or to loss of iodide in storage and transportation. The results are recorded in Table VII.

TABLE VII. THE IODIDE CONTENT OF TWELVE SAMPLES OF IODIZED SALT REPRESENTING TWELVE DIFFERENT BRANDS
Fifth Survey—Michigan, 1936

Manu- facturer	Labeled Percentage of Potas- sium Iodide	Percentage of Potas- sium Iodide Found	Variation from Declared Quantity %
1	.023	.0176	— .0054
1	.023	.0211	— .0029
2	.02	.0180	— .0020
3	.02	.0070	— .0130
4	.02 about	.0232	— .0032
5	.023 about	.0096	— .0134
6	.023	.0164	— .0066
7	.023	.0133	— .0097
8	.02	.0090	— .0110
9	.02	.0116	— .0084
10	.02	.0236	+ .0036
11	.023	.0152	— .0078
12	.020	.0147	— .0053

It is seen that all but one sample contained less iodide than claimed; but only three were below .010 per cent, the amount originally proposed by the Iodized Salt Committee; a better showing than either of the first two surveys.

Sixth Survey (Michigan, 1938)

The sixth survey, or series of "Iodized Salt" analyses, done by the authors on forty-seven samples obtained from various locations representing the entire State of Michigan are recorded in Tables VIII and IX. In addition to securing these data we attempted to determine the effect of ageing, agitation and centrifugation on the distribution of iodide in the salt (Tables X, XI and XII). We have also investigated the

possible effect of the addition of so-called drying substances on the percentage of iodide in the package (Table XIII) and whether any iodide is absorbed by the container (Table XIV).

Method**Reagents*

Standard Potassium Iodide Solution—0.1 mg. per c.c.

Chloroform—U.S.P., colorless, and water-clear. It is advisable to filter this reagent before use.

Sulfuric acid—10 per cent by volume.

Hydrogen peroxide, U.S.P. (3 per cent).

Determination

Dissolve in water in a liter flask, 300 grams of the mixed sample, make to mark, and mix. Pipet aliquots containing 0.1-0.3 mg. of KI into Nessler tubes and add 5 c.c. of water. Measure accurately into respective Nessler tubes 1.0-3.0 c.c. of the Standard KI solution, differing by 0.2 c.c. from each other, enough water to make with the standard a total volume of approximately 5 c.c., and a non-iodized salt solution adjusted to the same strength and volume as the unknown aliquot taken. Add from a buret to both standards and aliquots, exactly 5 c.c. of chloroform. Add 4 drops of the sulfuric acid from a 1 c.c. graduated pipet. To each tube in turn add 5 c.c. of hydrogen peroxide and at once mix the liquids thoroughly for several minutes with a bent glass rod. Let stand until the colored chloroform has separated to the bottom of the tubes. Break up the small amount of chloroform that usually floats on top of the aqueous solution. Compare the colors developed in the aliquots and standards by viewing sidewise through the tubes against a white background and calculate the percentage of KI.

If we arbitrarily consider .018 per cent to .024 per cent as a legitimate variation in the iodide content of the salt, we find that seventeen, or 36.2 per cent, of the samples were deficient in iodide. Three showed an excess, .026 per cent, .035 per cent and .050 per cent respectively; twenty-seven, or 57.4 per cent, were within the range. It is of interest to note that there were no samples containing less than .010 per cent, the amount the Committee originally recommended as sufficient to prevent the development of endemic goiter.

The Effect of Aging or Time of Standing.—Twelve of the samples were thoroughly mixed and locked in a cupboard in a dry room for a period of six months or over; when they were, after thoroughly mixing, again analyzed for their iodide content. There was only a very slight decrease in the amount of iodide. This difference was practically within the percentage of error of the method (Table X). This is

*Based on method used at one of the stations of the U. S. Food and Drug Administrations.³

TABLE VIII. THE IODIDE CONTENT OF FORTY-SEVEN SAMPLES OF IODIZED SALT REPRESENTING THIRTY-ONE DIFFERENT BRANDS

Sixth Survey—Michigan, 1938-9

Sample No.	Manu- facturer	Brand	Carton	Amount of Iodide		Dryer	Location
				Claimed	Found		
2	A	1	Round	.023	.016	Mg.CO ₃	Flint
9	A	1	Round	.023	.020	Mg.CO ₃	Detroit
33	A	1	Round	.023	.020	Mg.CO ₃	Jackson
28	A	2	Oblong	.023	.012	Mg.CO ₃	Grand Rapids
11	B	3	Round	.020	.020	Ca ₃ PO ₄	Detroit
13	B	3	Round	.020	.022	Ca ₃ PO ₄	Detroit
5	B	3	Round	.020	.021	Ca ₃ PO ₄	Oscoda
23	B	3	Round	.020	.019	Ca ₃ PO ₄	Grand Rapids
48	B	3	Round	.020	.020	Ca ₃ PO ₄	Ann Arbor
19	B	4	Round	.020	.022	Ca ₃ PO ₄ +NaHCO ₃	Ann Arbor
29	B	5	Oblong	.020	.020	Ca ₃ PO ₄ +NaHCO ₃	Ann Arbor
15	C	6	Round	.023	.020	Mg.CO ₃	Manchester
38	C	6	Round	.023	.018	Mg.CO ₃	Marquette
20	C	6	Round	.023	.020	Mg.CO ₃	Grand Rapids
6	C	6	Round	.023	.019	Mg.CO ₃	Flint
30	C	6	Round	.023	.016	Mg.CO ₃	Newberry
34	C	6	Round	.023	.023	Mg.CO ₃	Jackson
32	D	7	Round	.020	.010	Mg.CO ₃	Newberry
10	?	8	Round	.023	.050	CaCO ₃ +NaHCO ₃	Detroit
12	?	9	Round	.023	.020	Mg.CO ₃	Detroit
26	?	9	Round	.023	.022	Mg.CO ₃	Grand Rapids
14	?	10	Round	.023	.021	Ca ₃ PO ₄	Detroit
17	?	11	Round	.023	.035	Ca ₃ PO ₄	Manchester
18	?	12	Round	.020	.015	Mg.CO ₃	Flint
21	?	13	Round	.020	.021	Mg.CO ₃	Grand Rapids
22	?	14	Round	.020	.016	Mg.CO ₃	Grand Rapids
24	?	15	Round	.020	.024	NaHCO ₃ +Ca ₃ (PO ₄) ₂	Grand Rapids
25	?	15	Round	.020	.019	NaHCO ₃ +Ca ₃ (PO ₄) ₂	Grand Rapids
27	?	16	Oblong	.023	.026	Mg.CO ₃	Grand Rapids
31	?	17	Round	.023	.020	Mg.CO ₃	Newberry
35	?	18	Round	.020	.015	Ca ₃ PO ₄ +NaHCO ₃	Jackson
1	E	19	Round	.023	.021	Mg.CO ₃	Flint
8	E	19	Oblong	.023	.013	Ca ₃ PO ₄	Flint
3	?	9	Round	.023	.020	Mg.CO ₃	Fenton
4	?	11	Round	.023	.018	Ca ₃ PO ₄	Fenton
7	F	20	Oblong	.023	.020	Mg.CO ₃	Flint
36	?	21	Round	.023	.011	Mg.CO ₃	Marquette
37	?	22	Round	.023	.012	Mg.CO ₃	Marquette
39	?	23	Round	.023	.013	Mg.CO ₃	Marquette
40	?	24	Round	.023	.013	Mg.CO ₃	Marquette
41	?	25	Round	.020	.014	Ca ₃ (PO ₄) ₂ +NaHCO ₃	Marquette
42	?	26	Oblong	.023	.016	Mg.CO ₃	Marquette
43	?	27	Round	.023	.010	Mg.CO ₃	Ann Arbor
44	?	28	Round	.023	.020	Ca ₃ (PO ₄) ₂	Ann Arbor
45	?	29	Round	.023	.023	Ca ₃ (PO ₄) ₂	Ann Arbor
46	?	30	Round	.023	.018	Ca ₃ (PO ₄) ₂	Ann Arbor
47	?	31	Round	.023	.012	Mg.CO ₃	Ann Arbor

at variance with the survey of Nichols,⁴ who reported a loss of iodide content of from 6 to 95 per cent during a period of twenty-four months.

The Effect of Centrifugation.—Two 80-gram samples were taken from each of two packages of well-mixed iodized salt. After determining the iodide content of each, they were subjected to centrifugation at 4,000 R.P.M. in an angle centrifuge for two hours. The top and bottom thirds were

carefully separated and their iodide content determined. It will be seen by reference to Table XI that no change was effected by the centrifugation. The samples were weighed before and after centrifugation to determine the water loss; it varied from zero to 0.7 per cent, which would not be sufficient to alter the iodide value.

The Distribution of Iodide in the Package

It is of interest to know how the iodide is distributed throughout the package. Ac-

cordingly, eight packages that had stood on the shelf three months were investigated. The upper third of the package was carefully scooped off, thoroughly mixed and its iodide content determined. The same procedure was carried out with the middle and the bottom thirds. It will be seen from Table XII that the bottom third contains definitely less iodide than the other two-thirds. After prolonged agitation the de-

crease in the content of iodide in the lower third is more marked.

TABLE X.

Package Number	Control Analyses Iodide %	After Standing Six Months	
		First Analysis Iodide %	Second Analysis Iodide %
9	.020	.017	.017
10	.050	.046	.042
11	.020	.017	.017
14	.021	.020	.018
17	.035	.030	
19	.022	.019	.019
27	.026	.026	.026
29	.020	.017	.016
41	.014	.016	.016
42	.016	.016	.016
44	.020	.018	.017
47	.012	.011	.012

TABLE IX. THE IODIDE CONTENT OF FORTY-SEVEN SAMPLES IODIZED SALT ARRANGED ACCORDING TO THE AMOUNT OF IODIDE FOUND

Sixth Survey—Michigan, 1938-9

Percentage	Number
.010	2
.011	2
.012	3
.013	3
.014	1
.015	2
.016	4
.018	4
.019	3
.020	10
.021	4
.022	3
.023	2
.024	1
.026	1
.035	1
.050	1
Average: .01883	Total: 47 samples

TABLE XI. EFFECT OF CENTRIFUGATION ON THE DISTRIBUTION OF IODIDE IN IODIZED SALT

Package Number	Iodide Before Centrifugation	Iodide After Centrifugation		Loss in Weight
		Top	Bottom	
38 a	.016%	.016%	.016%	.2 gm.
b	"	.016%	.016%	.0
48 a	.020%	.020%	.020%	.25
b	"	.020%	.020%	.60

(a) (b): Two samples from each package were run as a check.

TABLE XII. DISTRIBUTION OF IODIDE IN THE VARIOUS LEVELS OF EIGHT PACKAGES OF IODIZED SALT AND THE EFFECT OF STANDING AND AGITATION

Number	Company	Brand	Iodide Claimed	Iodide Content After Standing 3 Months				Iodide Content After 1,000 Miles Auto Travel Over Rough Roads			
				Top	Middle	Bottom	Average	Top	Middle	Bottom	Average
1	E	19	.023	.022	.022	.018	.021	.021	.018	.016	.018
8	E	19	.023	.014	.013	.012	.013	.016	.019	.012	.016
2	A	1	.023	.016	.015	.015	.015	.017	.018	.015	.017
3	?	9	.023	.021	.021	.018	.020	.023	.020	.018	.020
4	?	11	.023	.018	.018	.018	.018	.018	.016	.014	.016
5	B	3	.020	.021	.021	.021	.021	.020	.018	.018	.019
6	C	6	.023	.020	.019	.019	.019	.025	.023	.019	.023
7	F	20	.023	.020	.022	.018	.020	.014	.013	.012	.013
Average				.01887	.019	.01737		.01925	.01812	.01550	

The Iodide Content of Iodized Salt Containing Various Drying Substances

Forty-five packages of iodized salt in our series had a desiccant added to them, either magnesium carbonate, calcium phosphate, calcium phosphate with sodium bicarbonate, or calcium carbonate with sodium bicarbonate. By reference to Table XIII it will be seen that those packages to which magnesium carbonate was added contain the lowest amount of iodide. However, we think one would not be justified in saying that the magnesium carbonate is responsible for this.

Observations on the Carton

We became interested to know if the iodide penetrated into the pasteboard of the carton and if this might account for loss of iodide. The labels, metal spout and all traces of salt were removed from six packages. The packages were individually torn into small pieces approximately one inch square and placed in liter extraction bottles. Approximately 600 c.c. of distilled water was added to each, thoroughly shaken and allowed to extract for twenty-four hours, then filtered and the pulp squeezed to remove practically all of the water. This thoroughly mixed extract was analyzed for its iodide content by the method heretofore described. It will be seen in Table XIV that comparatively large amounts of iodide were contained in the pasteboard in all but one of the cartons; as much as 69 milligrams in one instance—but still not enough to account for the loss of iodide from the salt in two of the six packages (42, 47). In one package subject to the same previous conditions no iodide was found in the carton.

TABLE XIII. THE POSSIBLE EFFECT OF ADDING A DESSICANT TO IODIZED SALT ON ITS IODIDE CONTENT

Claimed Amount of Iodide with Mg CO ₃		Claimed Amount of Iodide with Ca ₃ (PO ₄) ₂		Claimed Amount of Iodide with Ca(PO ₄) ₂ + Na HCO ₃	
Claimed .023%	.020%	Claimed .023%	.020%	Claimed .023%	.020%
Found		Found		Found	
.026*	.021	.023	.022	.035	.024
.023	.015	.021	.021		.022
.022	.010	.020	.020		.020
.021	.010	.018	.019		.020*
.020		.018			.019
.020		.013*			.015
.020					.014
.020					
.020					
.019					
.018					
.018					
.016*					
.016					
.016					
.013					
.013					
.012					
.012					
.012*					
.011					
.010					
Average:					
.0173	.0140	.0188	.0205		.0191

*Oblong package.

Summary and Conclusions

1. Since the introduction of iodized salt in Michigan,⁵ six surveys of the iodide content have been made of packages obtained on the open market. These are recorded.

2. A tendency for the iodide found to be below the amount claimed on the label of the package is shown. The amount found was seldom below the amount the Iodized Salt Committee had determined to be sufficient to prevent endemic goiter in children.

TABLE XIV. IODIDE IN THE PASTEBOARD OF THE IODIZED SALT CARTON

No.	Amount of Iodide Claimed in the Salt %	Amount of Iodide Found in the Salt %	Total Amount of Iodide Claimed mg.	Total Amount of Iodide Found mg.	Amount of Iodide Found in the Carton mg.	Difference mg.
9	.023	.020	169	147	18 (10.9%)	-4
15	.023	.020	169	147	28 (16.0%)	+8
26	.023	.022	169	161	0	-8
42	.023	.016	312	217	66 (23.3%)	-29
47	.023	.012	169	88	30 (25.4%)	-51
48	ca .023	.020	ca 147	147	69 (31.9%)	+69

3. In the authors' survey, if we arbitrarily consider .018 per cent to .024 per cent iodide to be a legitimate variation in the iodide content of iodized salt, seventeen (or 36.2 per cent) of the samples examined were deficient in iodide; three (or 6.4 per cent) showed an excess, and twenty-seven (or 57.4 per cent) were within the range. No samples contained less than .010 per cent of iodide, the amount originally recommended by the Iodized Salt Committee as sufficient to prevent the development of endemic goiter.

4. Ageing—allowing the packages to stand on the shelf for six months—caused no appreciable loss of iodide.

5. The bottom third of a package of iodized salt contains less iodide than the upper two-thirds after it has stood three months. The decrease in iodide content in the lower third is more marked after prolonged agitation of the package.

6. Centrifugation at 4,000 R.P.M. in an angle centrifuge did not cause any change

in the per cent of iodide in the top or bottom portion of the tubes.

7. Those samples of iodized salt which contained only magnesium carbonate as the desiccant showed the lowest amount of iodide. We are not justified in saying that magnesium carbonate is responsible for this situation.

8. The carton material of iodized salt packages may absorb large amounts of iodide. Five of six packages examined showed iodide; some in sufficient amount to account for the deficiency in the salt.

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CLINICAL USES OF ENDOMETRIAL BIOPSY*

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This report includes the results of 352 endometrial biopsies taken from 114 different patients. These patients represented a variety of clinical conditions, including: (1) decreased menstruation, twenty-nine patients; (2) uterine bleeding, twenty-two patients; (3) sterility, fourteen patients; (4) normal postpartum, twenty-one patients and (5) controls, twenty-eight patients.

The diagnosis and treatment of functional pelvic disorders has been handicapped by the lack of an accurate practical test to tell what degree and type of ovarian failure is present. Endocrine assays of blood and urine are of proven value in the research laboratory but too expensive and complicated for practical use. Examination of vaginal smears has the objection of being relatively insensitive compared to endometrial biopsy. Vaginal smears give information about the theelin level alone, telling nothing about the presence or absence of ovulation. A complete history and physical examination is the most important step in the diagnosis of either an organic or a functional disorder. The diagnosis in func-

tional pelvic disorders may be advanced still further by the use of endometrial biopsy, which, in a practical way, reflects the endocrine status of the ovaries. The Novak⁹ curette was used to secure specimens of endometrium from high on the anterior or posterior walls of the uterus. It would seem to us that this method is superior to that of Wollner,²⁰ who believes that tissue from the endocervix offers a better picture. It would appear better to remove the specimen from an area where regeneration is continually taking place rather than from the cervix, where subsequent scar formation might cause a severe contraction. No

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dilatation was necessary beyond the preliminary passage of a uterine sound. The tissue was placed in formalin solution and sent to the laboratory to be sectioned and stained. The chief contraindications to endometrial biopsy are pregnancy and pyometria.

Endometrial biopsy, like other diagnostic procedures, has certain limitations, but we agree with Herrell⁵ that it has proved to be the greatest single aid in determining whether ovarian activity is normal or deficient. In 1896, Westphalen¹⁸ described the cyclic changes in endometrium. His work was corroborated and amplified by Hitschman and Adler⁷ and later by Schroeder.¹⁵ In 1915, Novak¹⁰ published his first article on this subject, which was followed by his monograph in 1921.¹¹ In these studies, the endometrial cycle was divided into four phases: (1) the postmenstrual, (2) the proliferative or interval, (3) the secretory, premenstrual or differentiative, and (4) the menstrual. Later Sturgis and Meigs¹⁷ studied the changes in two phases: the preovulatory or proliferative phase and the postovulatory or secretory phase, the latter culminating in menstruation provided pregnancy had not taken place. Because there can be no secretion in the glands unless the endometrium fully differentiates itself, Herrell and Broders⁴ were correct in substituting "differentiative" phase for secretory phase, but we believe this is largely a matter of terminology. From our study of the endometrial biopsies obtained from the patients encountered in the practice of one of us (L. S. G.) it would appear more practical to follow the example of Sturgis and Meigs and divide the cycle into the preovulatory and postovulatory phases, designating whether the specimen showed early or late changes. It should be emphasized that the two phases are sharply demarcated so that no confusion should result except in occasional instances when the specimen is taken on the day of ovulation. If this occurs it is of no disadvantage when the routine procedure is to take four specimens at weekly intervals. It should be clearly understood that the changes taking place in the endometrium are merely reflections of different phases of ovarian activity. Facilities have not been available for the estimation of the hormone content of the blood.

Normal Functioning of the Ovary

At the cessation of menstruation the endometrial acini are short tubular structures, few in number, and many of them open directly on the ragged and irregular surface epithelium. The stroma is compact and stains deeply, while the blood vessels are small and exist as mere capillaries. The lining epithelium of the acini consists of columnar cells which are irregularly placed in relation to the basement membrane and show no mitotic activity. At this time the ovarian follicle shows a piling up of granulosa cells over the ovum in the formation known as the cumulus oöphorus and the corpus luteum of the preceding ovulation is rapidly regressing. If the follicular cells were the only source of theelin the postmenstrual concentration would be nil, but Parks¹² has shown that it can be extracted from the ovarian stroma alone and that the interstitial cells may be one source of this hormone. It is a tissue stimulant and with its increased production by the enlarging follicle, as the cycle progresses the epithelial cells lining the acini become larger, and mitotic figures appear in increasing numbers. They are still irregularly placed but the tendency to radiate toward the basement membrane is apparent and the outline of the gland becomes tortuous. The blood vessels at this stage show no significant changes. When the intrafollicular tension reaches the bursting point a rupture in the wall occurs and the ovum is extruded. Smith¹⁶ believes that the Call-Exner bodies in the wall of the follicle contribute a glycogen or sugar to the follicular fluid which raises the osmotic tension to such a point that rupture usually follows. If, on account of inflammatory or other changes, the tunica albuginea is thickened so that the ovum can not be extruded, a cyst of varying size will develop and its fluid content may contain sufficient theelin to maintain the endometrium in a continued proliferative state. With the rupture of the follicular wall and subsequent ovulation the accumulated follicular fluid is lost but the empty follicle fills with blood, which usually clots immediately. Beginning luteinization produces characteristic changes in the follicle so that it becomes lined with a gradually thickening wavy layer of yellow tissue and the production of corpus luteum hormone begins. Simultaneously the histological changes in

the endometrium are more clearly defined and in approximately 48 hours after ovulation the appearance is so striking and clear cut that it is unmistakable in properly secured and sectioned material. Where the preovulatory specimen showed the acinar nuclei to be irregularly placed, they have now definitely radiated toward the basement membrane but separated from it by a clear vacuolated area. This subnuclear vacuolization, with the gland cells ranging into line, was determined to be the earliest sign of ovulation in monkeys by Hisaw,⁶ and also in humans by Sturgis and Meigs.¹⁷ The stroma becomes edematous, the blood vessels are more prominent and their walls show increased thickening. The concentration of theelin maintains the endometrium in a proliferative state and at the same time

liferative and secretory stimuli are correspondingly diminished. Then menstruation occurs, and the cycle commences anew. It should be emphasized that these successive endometrial changes are merely the reflection of the function of the ovary. If the mechanism is intact a normal cycle results, but if this is disturbed the endometrium will show one of several pictures and the clinical symptoms will vary accordingly. With this in mind we have correlated the clinical symptoms with the histological examination of the endometrium and grouped our cases on the basis of ovarian function ranging from normal activity to complete dysfunction. Such a grouping consists of three columns, representing the clinical picture, endometrial findings, and ovarian functional status, respectively.

CLINICAL	ENDOMETRIUM	OVARY	
		THEELIN	CORPUS LUTEUM
Normal	Normal	Normal	Normal
Oligomenorrhea	Delayed Ovulation	Normal	Reduced
Sterility	Persistent Proliferative	Normal	Absent
Bleeding	Hyperplasia	Increased	Decreased or Absent
	(1) Cystic Dilatation		
	(2) "Swiss Cheese"		
Amenorrhea	Hypoplasia	Decreased	Decreased
Castration	Atrophy	Absent	Absent

the secretory activity of the corpus luteum manifests itself by the changes in the epithelium lining the acini so that the papillary infolding becomes a prominent feature; the glycogen which had filled the clear spaces in the early days of the postovulatory phase oozes past the nucleus, allowing the latter to rest on the basement membrane; the lumen contains a varying amount of secretion and the entire gland assumes a fuzzy appearance. When the theelin and corpus luteum influences are at their height, the endometrium reaches its maximum thickness, the gland acini become distended with secretion and at this stage the endometrium is prepared to embed and nourish the ovum provided fertilization has taken place. If such is the case, the stromal cells of the endometrium are converted into decidual cells and the secretory activity of the acini continues at an increasing rate because the corpus luteum shows no signs of regression. However, if fertilization has not taken place, the amount of theelin and corpus luteum decreases quite rapidly and the pro-

There must necessarily be some overlapping in the group of clinical symptoms, but the clinical condition listed represents the most common clinical counterpart for the corresponding endometrial and ovarian pictures. Inasmuch as the facilities for making endocrine assays of blood and urine have not been available to us, we have listed the theelin and corpus luteum levels at various stages of ovarian failure, as described in reports by Burch,¹ Wilson,¹⁹ Frank,³ Fluhman,² and Kotz and Parker.⁵ It is true that there is some variation in the timing of ovulation even in the normal cycle. Rock and Bartlett¹³ state that 75 per cent of normal women between the ages of twenty-five and forty have a secretory phase lasting twelve to sixteen days. We have used this to define a normal secretory phase, and have marked the beginning of such a phase from the first appearance of subnuclear vacuolization. The first sign of ovarian failure seems to be reduced corpus luteum activity with delayed ovulation and consequently a shortened secretory phase. Further

ovarian deficiency causes an absence of ovulation with resulting disappearance of corpus luteum activity, and a persistent proliferative phase in the endometrium. Such a patient may menstruate with a fair degree of regularity, but it is of the anovulatory type. Recognition of this is of special importance in the sterile patient. Endometrial hyperplasia with persistent bleeding is frequently encountered in medical practice. In this condition the theelin production is usually increased so that the endometrium is being constantly stimulated. The corpus luteum which acts as a check on this stimulating property of the theelin is usually decreased although in some instances the hyperplastic endometrium will show post-ovulatory changes. The hypoplastic endometrium is thin, the number of acini is reduced and the stroma is edematous. The ovary is deficient in both theelin and corpus luteum production. There is insufficient stimulation to activate the endometrium and the resulting amenorrhea will persist until sufficient theelin accumulates to bring about proliferative changes. When the theelin and the corpus luteum are completely absent following bilateral oöphorectomy, complete sterilization by radiation, or the destruction of the ovarian tissue by infection, the endometrium is reduced to a very thin layer of stromal tissue containing only an occasional acinus.

Decreased menstruation was the chief complaint of twenty-nine patients. All these patients showed genital hypoplasia on physical examination, and a thin hypoplastic endometrium on biopsy. There were no other clinical findings constantly present. Only seven patients (24 per cent) were obese. Relatively few complained of dysmenorrhea. Friedman test was done before endometrial biopsy wherever pregnancy could not be ruled out by pelvic examination. Two subdivisions of this group were analyzed; (1) regular scanty periods (hypomenorrhea), and (2) irregular scanty periods (oligomenorrhea). Endometrial biopsy showed normal ovulation changes in most (73 per cent) of the eleven hypomenorrheic patients, the remainder having no ovulation. In the eighteen oligomenorrheic patients, however, only one (5.5 per cent) showed normal ovulation, seven had delayed irregular ovulation, and ten showed a persisting proliferative phase with no ovulation. It

is apparent that patients with delayed scanty menses are much less liable to be ovulating normally than those with regular scanty flow. It was formerly believed that delayed periods were due to an excessively strong corpus luteum effect. Only one patient of the twenty-nine in this group showed early ovulation, evidenced by finding subnuclear vacuolization nineteen days premenstrual. Most of the remaining patients, especially those with oligomenorrhea, showed weakened corpus luteum effect accompanied by a persistent proliferative phase with no ovulation.

Endometrial biopsies were taken from twenty-two patients complaining of recently acquired excessive uterine bleeding. Clinical examination showed sixteen of these to be due to functional causes, which is an abnormally high percentage because this was a selected group. Biopsy showed in each case an endometrium somewhat thicker than normal, but no specific type of endometrium that might be said to be constantly present in functional uterine bleeding. The types of endometrium present included: three patients, normal; four patients, delayed ovulation; three patients, persistent proliferative; and six patients, hyperplasia, including cystic dilatation and so-called Swiss-cheese types. It is difficult to correlate clinical and endometrial findings in this type of case, because some of the most severe bleeding cases showed a normal endometrial cycle. Likewise, ovulation might or might not be present, irrespective of the severity and duration of the bleeding. Several of these cases had thorough diagnostic curettements subsequent to endometrial biopsy. No case was found where endometrial biopsy had overlooked carcinoma of the fundus. However, considering the small amount of tissue obtained, the value of negative endometrial biopsy in the diagnosis of carcinoma must remain an open question. It is likely that conventional dilatation and curettement will continue to be of more value than endometrial biopsy for this purpose.

Endometrial biopsy is essential in making an extensive investigation into the causes of sterility. After a complete history and physical examination of the wife is made to rule out organic causes, insufflation shows the tubes to be patent, and semen examination from the husband is satisfactory, attention is turned toward possible

functional factors, chief of which is the question of ovulation. Our report includes fourteen patients in this classification. Endometrial biopsy showed ten to have normal ovulation, and four to have no ovulation. Of these four anovulatory patients, two were having delayed periods, and two were having regular flow at intervals of twenty-six to twenty-eight days. The presence of regular menstrual periods does not guarantee the occurrence of ovulation. Rock¹⁴ has reported that 9 per cent of 392 cases studied had occasional anovulatory periods. At the present time endometrial biopsy is the only practical way to determine if and when a patient has ovulated. Both of these facts have obvious application in the treatment of sterility.

Endometrial biopsy was performed on a group of normal postpartum patients with the purpose of determining the time of reappearance of ovulation, with consequent fertility. Biopsies were secured only after the uterus had returned to approximately normal size, and endometrial integrity was reestablished. In 21 patients, biopsies were taken at intervals varying from three to twenty-four weeks postpartum. Ten patients nursed their babies for two to nine months. Of this number, eight patients (80 per cent) began to have periods and ovulation only after weaning their babies. Average duration of nursing was three and one-half months, which was followed at five months by anovulatory flow and at five and one-half months by the first ovulation. Two patients (20 per cent) had regular periods and ovulation begin while still nursing their babies. One of these, nursing for seven months, had periods begin at two months postpartum, and ovulation begin at five months. The other, nursing for nine months, had periods and ovulation begin at six and six and one-half months, respectively. In the eleven patients who were unable to nurse their babies, periods began on the average at two months postpartum, and ovulation appeared first at five months, or later. In answer to the question of whether menstrual periods or ovulation reappear first in the postpartum patient, analysis of these cases shows that in most of this group (95 per cent) one, or more, anovulatory periods occurred before ovulation appeared. In one patient (5 per cent) this sequence was reversed. She nursed

her baby only three weeks, at six weeks signs of ovulation appeared, and at eight weeks occurred her first postpartum menstrual period. The amount of endometrium available throughout the entire postpartum group was found to vary within wide limits. In some it was profuse and in others only a scant amount was found. The reason for this variation was not apparent inasmuch as no correlation with clinical condition was possible. In general, the early postpartum endometrium (one to three months) tended to be the hyperplastic type with cystic spaces and edematous papillary outgrowths, while later (three to six months) the endometrium was apt to be in either resting or proliferative phase, and more normal in appearance.

Summary

1. Three hundred and fifty-two endometrial biopsies were taken from 114 different patients, and the results analyzed to correlate the clinical pictures with the endometrial findings.

2. Biopsy may demonstrate any type of endometrium in—(a) decreased menstruation (most cases have hypoplastic endometrium in persistent proliferative phase), (b) functional uterine bleeding (most show hyperplasia).

3. Sterility patients must have endometrial biopsy to determine the occurrence and time of ovulation.

4. Endometrial studies on postpartum patients showed that—(a) 80 per cent of nursing mothers had neither periods nor ovulation until after discontinuing nursing. (b) 95 per cent of postpartum patients had one, or more, anovulatory periods before ovulation began.

5. Interpretation of findings: (a) normal secretory phase indicates intact pituitary-ovarian mechanism, (b) shortened secretory phase (delayed ovulation) is the first endometrial sign of ovarian failure, (c) negative endometrial biopsy does not eliminate possibility of carcinoma of fundus, (d) endometrial findings are the same in either primary or secondary ovarian failure.

6. Because the endometrium reflects ovarian function, endometrial biopsy is a necessary aid to a complete history and physical examination in the management of a functional pelvic disorder.

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A MALIGNANT SOLITARY POLYP OF THE SIGMOID COLON CAUSING INTUSSUSCEPTION

Case History

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This case is worthy of record for three reasons: first, single polyps of the colon infrequently require abdominal section for their removal; secondly, intussusception of the colon produced by a polyp is rare; thirdly, the polyp presented here demonstrates again that malignant changes begin at the distal end and involve the base at a later date.

The majority of single polyps of the large bowel can be removed by instrumentation through the rectum. When a polyp is discovered beyond the reach of a sigmoidoscope, laparotomy is required. Two technics are to be considered.

C. H. Mayo and W. L. Butsch have shown that direct removal with primary closure of the gut is a safe procedure when the colonic wall is otherwise normal and adequate pre-operative preparation is made. However, when there has been interference with the blood supply of the gut wall, as in our case, the safest procedure is that employing exteriorization such as employed in the Mikulicz technic.

Mrs. ———, aged twenty-four, at irregular intervals during the last three years, complained of attacks of generalized abdominal cramps which were often associated with nausea, anorexia, constipation and diarrhea. These attacks did not prevent her from working but she occasionally sought medical advice from one of us (W. L.). Examination at these times revealed no objective findings and the condition was believed to be a mild enteritis.

The onset of the last attack awakened her with severe abdominal cramps in the lower left quadrant and which she attributed to dysmenorrhea. The pains became progressively worse and were associated with backache and an urgent desire to defecate. Enemas were taken without relief. There was no nausea, vomiting, urinary disturbances or bloody discharge. About twenty hours after the onset she called her physician, who sent her to the hospital.

Examination revealed the patient to be free of disturbing pain, temperature 98.2 F., pulse rate 90 per minute, blood pressure 124/80. The only pathology presented was found upon abdominal and pelvic examination. Filling most of the lower left quadrant was a movable tender mass extending

from the pelvis to the superior iliac spine. There was no muscular rigidity.

Vaginal examination revealed the mass to be smooth, tender, and it filled the left adnexal region. The uterus was displaced upward and forward. Upon rectal examination the lower end of the mass was palpated with difficulty; there was a slight amount of blood.

Laboratory examination revealed: urine—specific gravity of 1.022, with a trace of acetone. White blood cells, 9,000; Polys, 74 per cent; filamented cells, 55 per cent. Kahn test was negative.

Exploratory operation was performed February 1, 1938. A complete intussusception of the sigmoid colon, measuring 18 cm. x 6 cm., was found. The bowel wall was very edematous, measuring one centimeter in thickness. After reduction a pedunculated tumor was found in the lumen in the upper one-half of the sigmoid loop. A Mikulicz type resection was done. Hospitalization lasted three weeks; she made an uneventful recovery.

Tissue report by Dr. H. C. Cope: The material consists of papillary mass, 5 x 3.5 x 2 cm. attached to a small pedicle 2 cm. in length. Microscopic sections show papillary structure composed of edematous stroma and numerous round and ovoid glands. In some areas the glandular epithelium shows staining variability and a tendency to invade the surrounding stroma. There is no involvement of the stalk at its intestinal end. Diagnosis: Papillary adeno-carcinoma, grade 2.

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SYPHILIS CONTROL IN MICHIGAN AND OUR NEW PRENATAL LAW*

The Advisory Committee on Syphilis Control of the Michigan State Medical Society has requested that the following summary of the aims, accomplishments, and future problems of syphilis control for Michigan be published in THE JOURNAL of the Michigan State Medical Society. In addition, it was requested that the essential features of our new Prenatal Law be given similar publicity.

The need to reduce the serious inroads by syphilis on the health of our citizens is generally recognized and heartily approved by our medical profession. It is likewise recognized that its incidence could be very rapidly reduced by effective control measures now available. The only question subject to argument is the method to be employed. The medical profession objects to the ever-increasing pressure to make the management of genito-infectious diseases the function of the state and set up facilities for their management entirely out of its hands at state expense. We object to the pauperizing of our citizens and the use of these diseases as another entering wedge to force the socialization of medical care. We believe that the practicing physician is an indispensable cog in such a control program, and that his interest should be encouraged. It is our aim to do this in Michigan. We have a wonderful opportunity to show the nation that such a program can be successful and have a greater permanency than the free clinic plan, so widely accepted in other states. To be successful, however, we must have the enthusiastic cooperation of the medical profession. We must appreciate the seriousness of the problem, and overcome the apathy shown by the majority of our profession. If we insist on pursuing a stand-pat policy, the socialization of genito-infectious diseases will most certainly be forced upon us. The solution lies in our own hands, if we will meet it.

A successful syphilis control program may be simply stated. Its aim should be finding and effectively treating all cases of infectious syphilis in any community. This means all cases of syphilis of less than five years duration, including early congenital syphilis, and all women having syphilis during pregnancy. All other cases of syphilis can be forgotten, as a communicable disease

problem. We agree with Keys, who states "that eight out of ten persons with syphilis cease to be infectious after three years, even though they do *not* receive treatment; 99 out of 100 cease to be infectious after four years, and the proportion of infections from persons with syphilis of more than five years standing is infinitesimal." The problem of finding and treating all cases of infectious syphilis is not, however, as easy as it sounds. We will first consider the finding of such cases.

Unfortunately, persons having early syphilis are seldom acutely ill and the lesions of primary and secondary syphilis are commonly insignificant and frequently overlooked. One-third of all men and two-thirds of all women go through this infectious period without realizing they have anything the matter with them or seeking medical advice. Many report only to counter-prescribing druggists or fail to secure a correct diagnosis, even when reporting to a physician. It is probable that less than 25 per cent of the new cases of syphilis occurring in any community are ever diagnosed in the early or infectious stage of syphilis.

Every possible effort should be made to find such early cases. This means more lay education, stressing the mild character of the early syphilis and urging the need of medical consultation. Our physicians must be more uniformly capable of diagnosing these cases. There must be more widespread use of immediate darkfield examinations and serologic follow-up on all genital lesions. The coöperation of the ethical druggists must be secured in policing their own ranks and curbing counter prescribing. One of the most effective ways of finding infectious cases in any community is through recognized cases. Proper investigation for sources and contacts of such recognized

*This report is presented by the Advisory Committee on Syphilis Control, which was composed of the following: Loren W. Shaffer, M.D., Chairman; R. S. Breakey, M.D., R. H. Holmes, M.D., Wm. A. Hyland, M.D., H. R. Roehm, M.D., C. K. Valade, M.D., Udo J. Wile, M.D.

cases is the most effective way of finding such foci and "nipping in the bud" those small epidemics of new cases that may occur in any community. Our medical profession has been reticent in assuming this obligation. This is a duty that we must shoulder as readily as we accept the responsibility in other communicable diseases. It is also the duty of health departments to encourage such source and contact finding and offer aid to physicians in this work.

It is likewise discouraging that so few of our recognized cases of early syphilis receive sufficient treatment to offer much promise of cure or to even permanent control of infectiousness. Probably less than one-fourth of such cases receive adequate treatment. It is felt that the most important factors in holding patients to treatment are education in advance, as to the seriousness of the disease and the amount of treatment necessary, good technic, reactionless treatment, encouragement as to cure, financial adjustments and, only rarely, recourse to threats of reporting the case to the health agencies. The cost of treatment has been overstressed as a cause of lapse, since free clinics usually have a larger incidence of lapsed cases than private physicians. It is a responsibility of our health departments to supply follow-up service where requested for infectious cases of syphilis lapsing treatment. It is not necessarily their responsibility to do so for late non-infectious cases.

What, therefore, is the status of present efforts at syphilis control? We are recognizing only 25 per cent of our early cases, and effectively treating only 25 per cent of these. This means that only one case of early syphilis in 16 is adequately controlled. The prevention of congenital syphilis has not been discussed. Our new Prenatal Law will help in bringing to the attention of our physicians the urgency of examining *every* pregnant woman for syphilis. It is hoped that such examinations will be made as early in pregnancy as possible, and that adequate treatment will be arranged for all such cases. If this is done, our problem of congenital syphilis will largely disappear.

We feel that our Advisory Committee on Syphilis Control of the Michigan State Medical Society has contributed much to the development of a satisfactory program in Michigan. This Committee was appointed in November, 1936, and has been continu-

ously active since that date. Among our major activities, the following are especially worthy of review:

1. Preparation of outline talks with illustrative lantern slides for use before both lay and professional audiences. The Joint Committee on Health Education have coöperated in acting as a distribution center and supplying speakers.

2. Preparation of approved outlines of treatment for the most common stages and clinical types of syphilis, with a similar outline covering common reactions to treatment and their prevention and management. These have been widely distributed and are constantly available through our State Health Department.

3. Advice and guidance to our State Health Department in the establishment of free-diagnostic laboratory service, the distribution of free drugs, and new reporting forms.

4. An active part in drafting our revised Prenuptial Law and securing its adoption with the assistance of our Legislative Committee and the State Legislature. Similar preparation and adoption of our present Prenatal Law.

5. Coöperation with the Junior Chamber of Commerce of Michigan in lay education and publicity programs.

6. Preparation and distribution by the Michigan State Health Department of dignified metal placards, calling attention to syphilis and the hazards of quack medication, for display in public toilets.

Our work has just begun. The most difficult part of our program is still ahead. The details of our "find and treat" program must still be brought to the attention and sold to our medical profession. We plan to continue our efforts at further, even more intensive, educational programs to both the laity and the medical profession. We have requested that each of our larger county medical societies have a Syphilis Control Committee and that the smaller units appoint a representative. The chairman or representative of such societies should be invited to meet with our State Committee to review the general Syphilis Control Program at the time of our annual meeting.

Our professional education talks should stress the importance of prompt and proven laboratory diagnosis of early syphilis. They should urge the necessity of source and

contact findings of all such early cases and the necessity of holding them to, at least, the minimum modern standards of treatment.

More aid is urgently needed by both our local and State Health Departments in assisting with source and contact finding and returning of lapsed early cases to further treatment. It is further requested that a full-time field secretary be appointed to our committee to develop and coördinate our county programs and educational efforts. It is requested that this appointee represent the Michigan State Medical Society in such efforts and salary be paid jointly by our Society and the Michigan State Health Department, similar to like positions with the Maternal Welfare and Cancer Programs.

* * *

The essential features of our present law requiring a prenatal blood test on all pregnant women are, as follows:

"Every physician attending a pregnant woman in the State of Michigan shall, in the case of each woman so attended, take or cause to be taken a sample of blood of such woman at the time of first examination, and submit such sample to an approved laboratory for a standard serological test for syphilis. Every other person permitted by law to attend upon pregnant women in the state, but not permitted by law to take blood tests, shall cause a sample of the blood of such pregnant woman to be taken and submitted to an approved laboratory for a standard serological test for syphilis.

"In reporting every birth and stillbirth, physicians and others permitted to attend pregnancy cases and required to report births and stillbirths, shall state

on the birth certificate or stillbirth certificate, as the case may be, whether a blood test for syphilis has been made during such pregnancy upon a specimen of blood taken from the woman who bore the child for which a birth or stillbirth certificate is filed and, if made, the date when such test was made, and, if not made, the reason why such test was not made. In no event shall the birth certificate state the result of the test.

"Such tests and reports shall not be made a matter of public record but shall be available to local health officers and to the physicians treating the patient."

It is felt that this law will accomplish much towards the eradication of congenital syphilis in Michigan. The test should be a part of the routine examination of every pregnant woman, regardless of her social or financial status, at the time of the *first* examination. It is hoped that lay educational efforts will help in bringing such women to their physicians early in pregnancy. If the presence of syphilis is recognized by the fifth month of pregnancy and adequate treatment given, the birth of a normal baby is almost assured. This is the highest type of preventive medicine. The discovery of the presence of syphilis at delivery through a cord Wassermann, although desirable if previous test could not be made, is inadequate, since the most highly effective treatment for congenital syphilis is preventive treatment given the mother before delivery. The new birth certificates are now in use. It is hoped that the great majority of our birth certificates will show that the test has been made early in pregnancy.

STORED BLOOD TRANSFUSION IN A RELATIVELY SMALL GENERAL HOSPITAL*

EDWIN P. VARY, M.D., and JOHN B. KRAHL, M.D.

HURLEY HOSPITAL, FLINT, MICHIGAN

Much has been written concerning the properties of stored blood and its use in highly organized closed-staff institutions,^{5,9,14,21,26} but little attention has been paid to the problems of establishing such systems in relatively small open-staff general hospitals. We have spent nearly a year organizing a system of stored blood transfusion in such an institution, without especially appropriated funds and without specifically assigned assistance. Because the problems of most general hospitals are similar, the details of organization and control are presented with the hope that they may prove helpful to those who wish to establish a similar transfusion service.

A statistical comparison of the three

*From Hurley Hospital, Flint, Michigan. Written in partial fulfillment of the requirements for the degree of Master of Science in Surgery (Edwin P. Vary), Horace H. Rackham School of Graduate Education, University of Michigan, Ann Arbor, Michigan.

methods of blood transfusion now in use at Hurley Hospital further emphasizes the advantages of our blood bank. The attending staff has recognized the desirability of utilizing this system and is gradually discarding the other two. We feel that we

have established a method of transfusion that is successful, safe, and above all practical.

History

Storing blood for transfusion was first suggested by Hedon in 1901.⁶³ Abel^{1,2} in 1913-14 visioned emergency operating room transfusion from blood stored in the operating room icebox. He mentions Nagel's transfusion of dogs with four-day-old refrigerated cell suspensions. Lardenois^{9,23} transfused dogs with four-day-old blood in 1916. Panum and Cornu stored blood for three weeks, noting that the blood retained its cytological elements intact. Two years later, Robertson^{5,56} transfused twenty-one times with stored blood.

The use of cadaver blood evolved from the work of Shamov between 1927 and 1929.⁶⁰ He began by testing the sterility of the systemic blood of dog cadavers stored for varying lengths of time at various temperatures. To disprove the toxicity of stored blood, exsanguinated dogs were transfused. When no apparent bad effects ensued Yudin^{66,67} used human cadaver blood in man with success. Many transfusions were being done by 1931 from this source, often using thirty-day-old blood.

In 1934, Servantie, Jeanneney and Julien-Viroz³³ experimented with stored donor's blood, found it satisfactory, and began its employment. From this came the so-called "blood bank" in this country, most widely publicized from the Cook County Hospital in 1937.^{21,22}

Stored placental blood was successfully utilized on a large scale by Bruskin⁹ in 1936 and within the year by many others. Goodall²⁶ often kept this blood for sixty days.

Today stored blood, both donor and placental, is being widely used throughout the world.

Organization

After reviewing the literature, not only concerned with the use of stored blood, but about transfusion by one of us as a whole,⁶⁵ we became convinced of three things: First, that our relatively high percentage of reactions could and should be lowered; second, that more transfusions, emergency and otherwise, were needed; third, that the first two faults could be remedied if a convenient procedure were adopted in which half

the pretransfusion testing could be done on blood drawn hours or days before the need for it should arise.

Beginning in October, we stored unused blood drawn for transfusion. We learned to preserve blood by conducting certain experiments with it. The quantity of blood stored slowly accumulated and its occasional use in extreme emergencies brought satisfactory results and secured gratitude, respect, and finally faith and dependence in the method by the various attending doctors.

As its use increased, the sources of blood increased to include therapeutic phlebotomy in symptomatic hypertension and congestive heart failure. Occasionally, a relative or former patient volunteered extra donations until by December, 1938, our supply was sufficient to maintain the three common types, A, B, and O. Since then, a rapid reverse in the proportion of regular transfusions to bank transfusions has taken place, until now stored blood is used 90 per cent of the time. Type AB blood has constituted about 2 per cent of donations and consequently is available less than half the time. Recently, a service organization offered to donate blood. It is hoped that AB blood from this source will maintain a full bank of all types and that the occasional imbalance between supply and demand in any one type can be positively offset by leisurely donation from this source.

In order to maintain a standard controllable technic, the resident staff has done all blood-letting and is responsible for the securing of replacements, for the care of the blood, charge slips, handling and administration of the blood. The storage records, checking for hemolysis, and overseeing of the blood in storage has been handled by the resident pathologist and no more than one other in his absence. This is important to eliminate the hazard of personal error. Orders for transfusion must state the amount wished and the desired time of administration to save confusion. Universal donor transfusions are not allowed^{13,8,12,15,25,36,40,46} without special permission in emergencies when the bank is depleted of the type desired.

Charges consist of a laboratory fee of \$4.00 for typing, Kahn and cross-matching, plus \$5.00 for each 600 c.c. given or frac-

tion thereof, no matter how many doses. The latter fee is to cover operating room expenses for taking replacement blood. It is an absolute rule that blood in the bank may not be purchased. Patients desiring replacement by professional donor make their own arrangements independent of the hospital.

Investigation of Storage Factors

In the evolution of our present system some control measures were advisable. Observations on the blood during storage led to certain investigations.

During the initial phase of development and periodically thereafter cultures were made of each lot of stored blood. Because these cultures were consistently negative, this check has been restricted to cultures on an occasional lot of blood.

Hemolysis is the outstanding cause of loss of blood from aging and many factors influence this change. Proper citration^{34,43,50} of blood proved essential to satisfactory storage. Several lots containing excessive citrate (150 c.c. or more per 500 c.c.) have undergone rapid hemolysis in early stages of storage. It was found that small amounts of citrate, such as 50 c.c. per 500 c.c. of blood, which was usually calculated to be adequate, frequently resulted in clotting during storage. This difficulty was eliminated by the use of 70 to 80 c.c. of citrate, which was adopted as our standard volume.

The effect of hydrogen ion concentration of citrate on hemolysis has been studied^{11,27} and commercial citrate solutions were found to be alkaline, necessitating correction to a range of 6.8 to 7.6. Repeated checks here revealed our commercial citrate to range from 6.7 to 7.2. Since this represents the lower optimum limit and our experimental studies on the effect of hydrogen ion concentration on hemolysis do not justify the formation of an opinion, we have not attempted to adjust the Ph of our citrate. Checks on the Ph of our commercial saline show it to range about 5.8. This acid solution may have some effect on hemolysis during transfusion, consequently as little saline as possible is employed during the actual administration of blood.

The other factors influencing hemolysis are agitation of the blood and temperature

change. It was found that agitation,^{25,32} whether done carelessly or in an attempt to divide large lots of blood, produced rapid and marked hemolysis. To permit division of blood lots, salvorsan tubes of a 375 c.c. capacity have been adopted as the standard storage vessel. Temperature change by allowing the blood to stand at room temperature produced a similar effect. For this reason a refrigerator which is part of the hospital system and free from the vibration of the usual small electric unit was chosen. Needless disturbance of blood and temperature change have been eliminated by securing locks for the refrigerator. A temperature of 2 to 4 degrees centigrade has been satisfactory. Freezing of blood results in hemolysis and clotting.

The rate of hemolysis and diffusion of inorganic elements from the cells to plasma has recently been shown to be influenced by the area of interphase between plasma and cells.⁵⁸ This is another reason for the selection of salvorsan tubes in preference to flasks as storage vessels.

Determination of the degree of hemolysis by gross examination was found to be uncertain. Talquist and Sahli determinations were impossible because of the low values. A set of standards was devised for checking hemolysis. These were prepared from discarded blood, using dilutions in distilled water. A set of ten Kahn tubes containing 0.25 per cent to 5 per cent of citrated blood by volume was employed. These were refrigerated unstoppered. New standards were prepared every three to four weeks. After centrifuging a sample of stored blood for cross matching, the plasma was compared to the standards. Hemolysis of 2 per cent produced a very marked color change and we have established this arbitrary limit for administration. It was observed that hemolysis below 1 per cent produced only slight change but values above this produce marked change.

White to yellow stringy debris was noted in many tubes of stored blood. Smears and paraffin blocks of this material showed it to consist of fibrin and leukocytes. Many authors believe this to be innocuous, but we feel that removal by filtration at the time of transfusion at least eliminates needle plugging.

Technic of Taking, Storage and Administration

Donors are asked about their past and present health and their blood pressure is taken. The blood pressure cuff is set at 20 mm. of mercury above diastolic pressure and closely watched and adjusted as phle-

cent procaine hydrochloride solution is injected intradermally just away from the chosen vein. The skin is nicked with a No. 11 knife to avoid plugging the needle with skin. A No. 13 to 16 gauge needle is then inserted through the skin, moved to the side of or directly over the vein ready for inser-

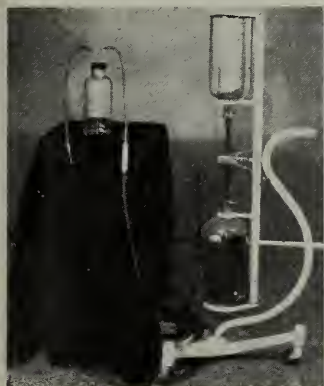


Fig. 1. BLOOD-DRAWING APPARATUS.

The materials used are obviously available as standard equipment in any hospital, with the exception, perhaps, of the suction device. Some prefer not to use suction, and we object to the employment of mouth section. The ordinary Wangensteen with the addition of a trap bottle is satisfactory.

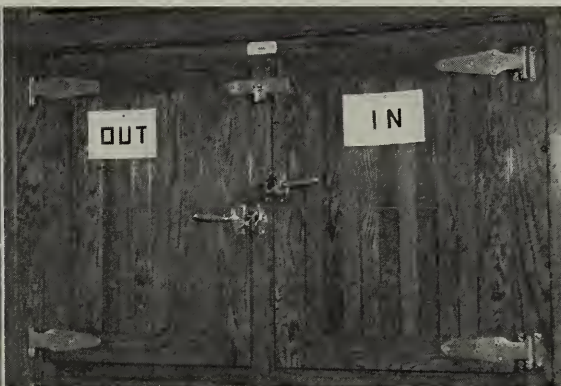


Fig. 2. STORAGE COMPARTMENT.

When possible a box incorporated in the general hospital system is preferred to small mechanical units. The advantages are enumerated in the text.

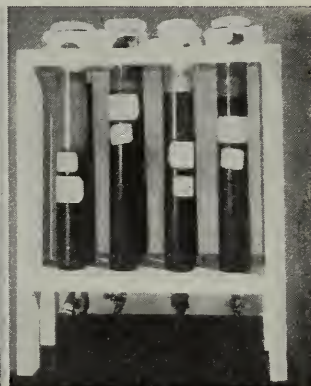


Fig. 3. TUBES OF BLOOD IN STORAGE.

Description and advantages over flasks are described in the text. The labels are those of the blood record and read as follows:

Donor: John Doe
Date: 11-1-38
Amt. Bl.: 600 c.c.
Amt. Citrate: 100 c.c.

The tube on the left shows the plasma most clearly.

botomy proceeds to assure a rapid flow of blood.

Blood-letting is done by a closed method to minimize contamination. A 1,000 c.c. wide-mouth bottle or flask is used with a two-hole stopper from which protrudes glass tubes bent at right angles (Fig. 1). A short intake amber rubber tube connects directly to the needle. The outlet tube connects to a low pressure Wangensteen with a gauze trap intervening. This trap is made from an intravenous dropper. Stirring and shaking are not allowed since partial defibrination results in chills. Uniform citration is assured by giving the bottle a swirl every two to three minutes by the clock.

An initial 35 to 40 c.c. of a 2.5 per cent solution of sodium citrate is drawn into the receiving bottle, citrating the needle and the entire system. This proves the patency of the system as well as wetting all surfaces. The balance of the total allotted 70 to 80 c.c. of citrate per 500 c.c. of blood is drawn into the bottle at the completion of phlebotomy.

Sterile drapes are applied to the arm after preparation, about 0.1 c.c. of 0.5 per

cent procaine hydrochloride solution is injected intradermally just away from the chosen vein. The skin is nicked with a No. 11 knife to avoid plugging the needle with skin. A No. 13 to 16 gauge needle is then inserted through the skin, moved to the side of or directly over the vein ready for inser-

tion. If a shovel-nosed needle is used, the vein is entered by a quick hop to avoid dissecting the vein coats. If a stylet-pointed needle (Unger) is used, a steady push until blood flows freely is preferable to avoid going through the opposite wall. A refinement in technic which prevents early needle clots is insertion of the needle against the direction of flow of blood, *i.e.*, toward the fingers. At the end of the phlebotomy, blood for a Kahn and for typing is taken, being careful to avoid citration. The blood is filtered through a funnel packed with six to eight layers of gauze into as many citrated salvansan tubes as needed. Care is taken not to fill above two inches from the top to prevent wetting the gauze used as a cover. Cotton plugs are not allowed. Filtration at this time removes clots which might prove embarrassing if found at the time of transfusion. These tubes are marked with the donor's name, date, amount of blood, amount of citrate, and blank spaces are left for the recording of type, Kahn and lot number (Fig. 3).

The entire blood-letting apparatus is im-

mediately rinsed in cold water, rolling the tubing between the fingers to dislodge clots. The inside of the needle is scoured with Bon Ami if necessary, to make it shine and prevent early clot formation. Next, the apparatus is washed in freshly distilled water, completely draining all water collections from the tubing and bottle to eliminate the generation of pyrogen^{10,45} in the interval before autoclaving. The gauze for filtering is rinsed in distilled water just before autoclaving and if not dry at the time of use it is rinsed with normal saline or citrate to prevent hemolysis.

At the conclusion of phlebotomy the storage tubes are placed in a wooden rack, immediately taken to the "intake" side of the bank (Fig. 2), and the Kahn and typing tubes taken to the laboratory. The following day, the blood is typed, Kahn-tested, given a lot number, checked for hemolysis, entered in the book which is kept in the icebox, and moved to the "outgoing" side of the box (Fig. 2). Its legend is also entered on the outside of the door. The blood is checked every day, principally for hemolysis, and okayed by dating.

We have learned to recognize impending hemolysis by a tinting of the interphase between the plasma and cells (Tube 4, Fig. 3). When this end-point of storage seems imminent plasma is drawn off by using a long glass tube connected to a phlebotomy set. The employment of salvarsan tubes for storage facilitates the withdrawal of plasma without waste or contamination by red blood cells. Like types are pooled. Plasma apparently keeps indefinitely and is used in treating shock where blood loss does not obtain^{7,20,30,35,49} such as in the treatment of major burns,^{34,35,64} spinal shock from the onset of acute peritonitis. It is also employed in the cachectic individual where no significant anemia demands whole blood (Table II).

Cross-matching, using fresh samples from the recipient, is always done before each transfusion^{15,39,52} unless the same lot number of blood is used within less than seven days.^{4,19,32,42,54} Transfusion with another portion of the same lot of blood to the same recipient is not allowed after seven days because of the danger of the repeat donor (Table I). If it becomes necessary to give blood in which the least hemolysis is present 60 grains of sodium bicarbonate

are administered to the recipient from one to two hours before transfusion unless the urine (fresh) is distinctly alkaline.^{3,6,8,17,46}

Blood may be given cold if necessary, but it is usually warmed in tepid (never hot) water under the direct supervision of the interne. The blood is again strained through a gauze-packed funnel into the usual Kelly bottle intravenous dripping system which has previously been started with saline (never Ringer's solution or glucose in distilled water). Excess saline is removed from the Kelly bottle at the time the blood is poured in. Saline is not added to the Kelly bottle until all of the blood has been taken. Heat jackets and hot water bottles are not allowed. The ideal rate of administration is 40 to 60 drops a minute, but when the occasion demands it may be speeded up to a steady stream.

The patient is observed for reaction very closely during the first 20 to 40 c.c. by watching for changes in the radial pulse as well as for the other usual signs and symptoms of reaction.⁶⁵ Checking continues by the interne until the first 100 c.c. of blood have been taken. A nurse is then assigned to watch the patient in the same manner during the balance of the transfusion. The administration is stopped on the least provocation. Patients developing reactions are observed for hemoglobinuria and icterus for several days, given another freshly cross-matched transfusion or treated for uremia as the occasion demands. Other types of reactions⁶⁵ are treated symptomatically.

The intravenous apparatus, storage tubes, gauze, and funnels employed are cleansed in the same way as the phlebotomy sets, first on the floor where the transfusion was given, and then in the operating room. New intravenous tubing and stoppers are treated with soaking in 10 per cent sodium hydroxide for thirty minutes or boiling in a 0.1 per cent solution, for five minutes.

Statistical Analysis

In order to evaluate our results, all transfusions done from July, 1938, to June 10, 1939, have been analyzed. They have been divided into three groups: those done with an open method employing a stirring rod for mixing the citrate, those done by a closed method, and those in which stored blood was used.

The criteria used in establishing reac-

STORED BLOOD TRANSFUSION—VARY AND KRAHL

TABLE I.

	Stored Blood				Closed Method of Taking Blood				Open Method of Taking Blood			
	No.	%	Reactions		No.	%	Reactions		No.	%	Reactions	
			No.	%			No.	%			No.	%
Number of Transfusions	220				177				63			
Average Vol. c.c.	366				359				381			
Deaths from Transfusions	0				0				0			
Definite Reactions — All Types			16	7%			27	15%			19	30%
Questionable Mild Reaction			6	3%			8	5%			2	3%
Indeterminate Reactions			6	3%			4	2%			1	2%
Total Possible Reactions			28	13%			39	22%			22	35%
Reactions with Chills*			11	69%			16	59%			16	84%
Reactions — Fever Only*			3	19%			7	26%			2	11%
Delayed Reactions within 24 Hours*			1	6%			1	4%			0	
Reactions with Icterus*			1	6%			1	4%			0	
Reactions with Allergic Manifestations*			0				1	4%			0	
Reactions with Hemoglobinuria*			0				1	4%			0	
Transfusion in Blood Dyscrasia	5	2%	2	40%	11	6%	4	36%	7	11%	3	43%
Transfusions in Infection	115	52%	11	10%	97	55%	12	13%	37	59%	12	33%
Transfusions in Hemorrhage Only	46	21%	1	2%	26	14%	3	12%	14	22%	6	43%
Transfusions Using Universal Donor	2	1%	0		1	0.5%	0		0		0	
Transfusions without Typing	0				43	24%	6	14%	23	37%	6	26%
Transfusions with Repeat Donors: Under 8 Days	18	9%	0		26	12%	4	16%	0			
9 Days and Over	0				2	1%	1	50%	2	4%	2	100%
Transfusions without Kahn or Wass.	0				24	14%			7	11%		
Transfusions with Positive Kahn or Wass.	0				5	2%			0			

*Per cent figured against "Definite Reactions—All Types" (item 4 above).

tions consisted of: (1) all chills during or within a reasonable time after completion of the transfusion; (2) a temperature rise of over one degree unless there were definite indications that this fever was due to another cause. Subjective symptoms were accepted only when accompanied by pulse or respiratory rises not definitely accountable from other causes. Questionable reactions included those in which these criteria did not apply, but the possibility of a mild reaction could not be excluded. This was done after considerable individualization in each instance. Indeterminate

reactions were those in which no possible conclusion could be drawn due to lost nurses' notes, the presence of a very stormy course in a disease, or presence in the operating or emergency room under conditions of confusion.

Table I compares the three systems of indirect transfusion used at Hurley Hospital. At first the open method was used exclusively while at present it is used only occasionally. The closed method was soon added and employed about 80 per cent of the time during the first six months.

The figures shown favor stored blood

TABLE II. STORED BLOOD

	No.	%	—Reactions—	
			No.	%
Transfusions with blood less than 5 days old.....	111	50%	6	5.4%
Transfusions with blood 5 to 9 days, incl.....	61	28%	4	6.5%
Transfusions with blood 10 to 18 days, incl.....	38	17%	2	5.3%
Transfusions with blood 19 to 28 days, incl.....	8	4%	4	50.0%
Transfusions given with hemolysis.....	24	11%	3	12.5%
Transfusions given with hemolyzed blood less than 19 days old.....	19	79%	0	
Transfusions given with hemolyzed blood more than 19 days old.....	5	21%	2	40.0%
Average age of blood given.....	6	Days		
Plasma transfusions (stored).....	19		0	
Average age plasma (stored).....	13	Days		
Plasma transfusions (not stored).....	4		0	

from the standpoint of reactions. The closed system, using specific donors, shows a greater number of reactions and fails to accomplish all the desired refinements of pretransfusion testing. This is shown in the breakdown of the reaction statistics. Blood without Kahn or with a positive Kahn was given thirty-five times.^{41,47,55} Known luetic blood was given to three patients with syphilis, but no evaluation of the activity of the recipients' syphilis was noted. Our figures fail to show any difference in the reactions among those without typing prior to cross-matching or with the employment of universal donors. However, our series is so small that we are inclined to put as much stress on typing and the elimination of the universal donor as is found in the general literature.^{15,16,18}

^{24,37,39,44,51,52,62,65} We are also insisting on more potent typing sera (titers of at least 1 to 10), because several errors in typing bloods have been discovered where cross matching showed incompatibility. The securing of fresh blood samples for each cross-matching is stressed, having in mind the development of abnormal agglutinins from repeated transfusion and from the disease from which the recipient is suffering.⁴² This is especially notable during acute infections.¹³

The use of repeat donors more than seven days from the first transfusion was attended by the usual high percentage of reactions. In one case the reaction was severe. The number appearing under stored blood refers to different portions of

the same lot given to the same recipient. These were usually given two or three days apart.

The percentage of reactions attending transfusion in the presence of blood dyscrasia and uncomplicated hemorrhage confirms that found in the general literature.¹³ Our percentage of reactions in infection is low and we attribute this equally to the small amount of each transfusion,⁴⁸ to the rule of giving the blood during a relatively afebrile period, and the fact that no blood was given unless a measurable anemia existed. The large number of transfusions given in this group is chargeable to the decidedly successful combination of sulphanilamide and blood for puerperal sepsis, erysipelas, and other streptococcic infections. We regretfully report that several added transfusions became necessary because of the use of the magnesium and sulphate ions, usually as cathartics, during the course of sulphanilamide therapy. The resulting severe methemoglobinemia was most often caused by milk of magnesia. Satisfactory alleviation of the methemoglobinemia was accomplished by repeated transfusions and oxygen therapy.

Table II presents figures to confirm those found in the literature relative to reactions as storage time increases,^{28,29,58,59} but disagrees with the literature by raising the time split to eighteen days instead of the usual ten to fifteen days. We are not giving aged blood now unless an extreme emergency demands it. Our figures show that minor degrees of hemolysis have no influence on

reactions unless the blood is aged. The use of blood showing more than one per cent hemolysis is discouraged.

The lack of reactions to plasma transfusion confirms that generally known to exist. We still hesitate to give plasma out of type and never give it without a minor cross-match.

Table III shows a much higher percentage of discards for hemolysis than now obtains because of our present routine of taking off the plasma before hemolysis occurs. This advantage of conservation is augmented by a few encouraging examples we have witnessed from the proper administration of plasma.^{30,31} The number of discards for reasons other than hemolysis is surprisingly low. The immediate past few months has seen a noticeable improvement in technic both in the taking of blood and in its storage.

Summary

The details of a practical method of blood storage have been presented. This system is so successful that we recommend its use in relatively small open staff general hospitals with active traumatic and emergency services.

Stored blood has definite advantages over all other types of transfusion: first, it facilitates true emergency transfusion and eliminates the confusion and errors promoted by the pressure of emergency when other methods are used; second, it provides adequate pretransfusion testing of all blood and eliminates short-cuts which might prove disastrous both from the standpoint of reactions and the transmission of syphilis; third, it assures a standard transfusion technic and reduces transfusion reactions to a minimum; fourth, it provides a more efficient and convenient transfusion service.

Careful attention to the details of technic in taking and storing blood are essential to minimize reactions. Open methods of taking blood are definitely inferior. Salvartan tubes possess definite advantages over other types of storage vessels. Optimum citration, elimination of agitation and constant refrigeration influence the rate of hemolysis. Minor degrees of hemolysis in blood which is not aged do not apparently affect the reaction percentage, but aged blood, whether hemolyzed or not, increases this figure sharply. The same at-

TABLE III. BANK ANALYSIS

	No.	Per-centage
Blood lots	239	
Transfusions given.....	220	
Discard lots used for plasma.....	15	6.2%
Lots actually discarded.....	27	10.1%
Discarded—Positive Kahn	2	0.8%
Discarded—No Kahn*	4	1.7%
Discarded—Accidental; Breakage, Freezing, etc.	4	1.7%
Discarded—Clotting; In Storage....	3	1.3%
Discarded—Hemolysis	14	5.9%
Average age at which hemolysis occurred	12	Days
Average age at which discarded for hemolysis	15	Days

*Specimen lost, citrated or otherwise unsatisfactory.

tention to detail in administration and the early discovery of reactions is important.

Collection and storage of plasma has reduced the waste of bank blood. The administration of this plasma, where indicated, has been gratifying.

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BROMIDE INTOXICATION*

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Bromide preparations have long been utilized by both the medical profession and the laity and have been the traditional drugs of choice for sedation. They have enjoyed wide usage because of their economy, ease of administration and frequent inclusion in proprietary preparations. They may be procured without difficulty by the laity, who all too frequently consider them harmless. The beneficial effect of these drugs, when correctly used, has been appreciated by physicians, as well as the fact that deleterious and injurious effects may follow injudicious or excessive administration. The misuse of such drugs often brings about medical and neuropsychiatric complications which may become more serious than the patient's original difficulty, and indeed may jeopardize

the life of the patient. It is the purpose of this report to emphasize the extensive employment of these drugs, the dangers attending their misuse and the frequent neuropsychiatric conditions associated with bromide intoxication.

*From the Neuropsychiatric Institute, University of Michigan. Read before the seventy-third annual convention of the Michigan State Medical Society, Detroit, September 21, 1938.

Physiological Action

Bromides are usually administered as sodium, potassium, ammonium or strontium salts and the action of all of these is approximately the same. Ingested bromide is rapidly distributed in the body to the blood cells, blood serum, spinal fluid, saliva, urine and gastric juice.¹⁰ In the blood the activity of bromide ion is closely allied to the chloride concentration. The displacement of chloride ion by the bromide ion and the resultant disturbance of the chloride metabolism plays an important rôle in the intoxicating process. As is well known, the body possesses the ability to regulate closely the excretion of chloride and any diminution in intake is immediately compensated for by a decreased output. The bromide ion will replace the chloride ion in the blood, and the kidney tends to excrete chloride and retain bromide. When a bromide preparation is regularly administered there is a progressive loss of blood chlorides and an ion-for-ion replacement by bromide.¹⁰ The percentage of chloride replacement is important and it is reported that a 25 per cent replacement will cause symptoms of intoxication; 40 per cent replacement by bromide has been fatal in rabbits and 45 to 50 per cent replacement has proven fatal in man.¹

When bromide is administered to a healthy individual it rapidly accumulates in the blood. This was shown experimentally by Cross,⁵ who gave sodium bromide gr. XV. t.i.d. and after one week found the bromide concentration to be 130 mg. per 100 c.c. of blood. At the end of three weeks it had risen to 210 mg., and when a salt-free diet was given the concentration rapidly increased to the dangerous level of 330 mg. When bromide administration has ceased, its level is maintained by further excretion of chloride and, without therapy, patients may continue to show a high blood bromide concentration for weeks. This was well demonstrated by Barbour,¹ whose patient had an initial concentration of 250 mg. and after nine drug-free weeks still had 90 mg. of bromide per 100 c.c. of blood.

Early bromide accumulation occurs in such diseases as anemia and cachexia, where there is a pre-existing paucity of chlorides in the body fluids. Disturbances of water metabolism such as are noted in cardiac dis-

orders, renal insufficiency or inadequate intake of fluid tend to increase the danger of bromide intoxication.

Therapeutic Action

Bromides in therapeutic doses are frequently valuable in relieving nervous tension, anxiety and restlessness. The bromide ion affects all parts of the central nervous system but apparently exerts its greatest effect on the higher centers. It acts as a depressant to the motor and sensory areas of the brain and produces retardation of thought and its expression. When the desired effect is obtained there occurs a diminution in nervous tension, a sense of relaxation and relief from anxiety and a disappearance of restlessness and irritability.

Signs and Symptoms of Bromide Intoxication

The clinical picture of bromide intoxication may vary tremendously in different patients. It has been classified for clinical convenience into simple intoxication, advanced intoxication and psychoses associated with intoxication.

Simple intoxication presents a picture of severe depression of psychic and somatic functions with marked slowing of all psychomotor processes. The patient becomes dull, listless and apathetic and appears drowsy and fatigued. Because of lassitude the patient is disinclined toward any muscular exertion and may sleep most of the time. There occurs a marked depression of intellectual functions and the patient thinks slowly and with difficulty. He has trouble in association of ideas and difficulty in the expression of thought. The patient appears somnolent and confused and his movements are slow, clumsy and reduced to a minimum. Memory is hazy and any intellectual task is approached without interest and with decreased attention, perception and comprehension. Neurological signs are frequently prominent. The superficial and deep reflexes are usually diminished or absent (infrequently certain tendon reflexes may be increased). The pupils are usually dilated and react sluggishly to light and in accommodation. Double vision and diminution of convergence may occur. Thickness and slurring of speech is frequently noted. The facial musculature may be flaccid and the face expressionless.

Tremors of the extremities and tongue are frequent. Sensibility to pain and touch is diminished.

In advanced intoxication all the previously described symptoms are exaggerated. The patient may be stuporous and aroused with difficulty. He appears seriously ill. Under these circumstances a fatal termination is not unusual.

The psychoses associated with bromide intoxication are protean in their manifestations. Frequently the first sign of an impending psychotic complication is a transition from a favorable sedative effect to a state of irritable restlessness and increased tension. This may then change to a dream-like state characterized by strange and terrifying hallucinations. Delirious reactions with marked confusion and physical toxicity may also occur. Some patients show a marked excitement with elation suggesting either a manic disorder or excited general paresis. Still others may show disordered thought, dullness, memory disturbances, and slowing of psychomotor processes suggesting an organic dementia.

Skin complications consisting of discrete pustules closely resembling acne vulgaris or more rarely elevated plaques or fungating lesions have long been considered a cardinal warning sign of bromide intoxication. More recent reports, however, emphasize the fact that the "bromide rash" is very frequently absent in extremely severe intoxications. The skin lesions may appear in some individuals with a low concentration of bromide in the blood, while others with high concentration may have no skin complications. Craven and Lancaster^{3,4} reported fifty cases of bromide intoxication but only two had a skin rash. Curran⁶ found only nine cases with skin complications in a series of fifty cases of bromide psychosis. Other authors^{1,2,8,11,12} have also reported a low incidence of skin rash in cases with other evidence of bromide intoxication and a high bromide concentration in the blood. It is therefore dangerous to wait for the appearance of a rash as an indicator of bromide intoxication.

Threshold of Bromide Intoxication

The concentration of blood bromide necessary to produce toxic symptoms varies and it is impossible to set a universal toxic threshold. Katzenelbogen et al⁹ experi-

mentally achieved levels of 315 mg. and 385 mg. of bromide per 100 c.c. of blood without clinical symptoms. Others have observed severe mental disturbances with bromide concentrations of 150 mg. and less.

The susceptibility to mental symptoms from bromide ingestion (just as with alcohol or other intoxicating drug) appears to be dependent on the integrity of the central nervous system and on the degree of psychic integration and stability. Psychological symptoms are apt to appear very early in those individuals whose psychic reserve is low as the result of organic changes in the brain (hypertension, cerebral arteriosclerosis, senility) or acute intoxications of the nervous system (endogenous toxemia, acute infections, alcohol, et cetera).

The level of blood bromide concentration compatible with mental health is dependent on the general physical and psychic condition of the patient. In view of the importance of the personal factor it is hazardous to set a level of blood concentration of bromide at which symptoms of intoxication are apt to occur but Barbour et al² have empirically arrived at the following conclusions: If the blood concentration of bromide is below 100 mg. per 100 c.c. it can be safely ignored in young, healthy individuals. Amounts between 100 mg. and 200 mg. per 100 c.c. are likely to produce symptoms in elderly individuals with impaired cardiovascular-renal systems. When the concentration is above 200 mg. per 100 c.c. of blood, symptoms of intoxication usually become apparent.

Frequency of Bromide Intoxication

Bromide administration (either by self-medication or by physician's prescription) resulting in toxic manifestations occurs much more frequently than is generally recognized. Wuth¹⁴ reported that in 238 consecutive admissions to a psychiatric service 21 per cent of patients had received bromide and that twenty of these showed evidence of intoxication. Diethelm⁷ found in consecutive admissions to the same clinic for a period of ten months that 40 per cent of patients had taken some bromide and 2 per cent had toxic symptoms. Wagner and Bunbury¹² studied 1,000 consecutive admissions to the Colorado Psychopathic Hospital and discovered blood bromide concentrations over 75 mg. per 100 c.c. in 7.7

per cent of patients. Of these thirty-three had received the drug on a physician's prescription, fourteen from patent medicine and in thirty cases the source was undetermined. In England, Barbour¹ reported a series of fifty consecutive admissions with 78 per cent having bromide in the blood, four of these with more than 175 mg. per 100 c.c. Barbour et al² analyzed 400 physicians' prescriptions and found that one of every seven prescriptions contained bromide as the chief ingredient. This would mean that in England 8,000,000 prescriptions per year had a bromide as the principal ingredient.

In order to determine the incidence of bromide in the blood of patients presenting themselves for medical care, blood bromide determinations were made on 2,000 consecutive admissions to the University Hospital. An effort was made to approximate the conditions of general practice by making routine examinations on every patient over fourteen years of age regardless of the presenting complaint or the clinic to which the patient had been assigned. We feel that this is a fairly accurate cross-section of patients who might come to a physician's office. These studies revealed a blood bromide concentration above 25 mg. per 100 c.c. in 132 cases (6.6 per cent); in thirty-seven cases the blood bromide was above 75 mg. and in 15 cases above 100 mg.

Illustrative Case Reports

Cases with Low Psychic Reserve

Some patients with bromide intoxication show only mental hebetude and dulness with predominating physical and neurological signs, while others appear particularly susceptible to mental disorders. This predisposition to psychoses depends upon a number of variable factors and important among these are psychological stability and personality integration. These factors may show marked variations depending on the general state of health, the life situation and the psychological load the individual is carrying. The inherent emotional stability and the presence or absence of organic disease of the brain is likewise important. In general, it may be stated that any of these factors may reduce the psychic reserve and resistance to mental disease to such a degree that even a mild bromide intoxication will precipitate a psychosis. Individuals with

mild mental disorders, organic brain syndromes or with basically neurotic personalities must be considered as already in precarious balance and potentially intoxicating drugs such as bromides should be used with great caution.

The following case demonstrates the effects of heavy sedation in a neurotic, emotionally immature girl. By reason of her unstable personality and numerous psychic conflicts, she had a very narrow margin of safety and was readily carried over into a psychotic reaction by the accumulation of bromides.

Case 1.—J. M. C., a white, single girl, aged eighteen years, was admitted to the hospital because of hallucinations, and delusions that the family were poisoning her food and repeated episodes of attempted truancy from home.

The family history was essentially negative. In personality the patient has been a wilful, spoiled girl who was emotionally immature and unstable. At the age of four years she developed strabismus and the parents satisfied her every wish to compensate for her disability. She became extremely dependent, demanded constant attention and had temper tantrums when her wishes were opposed. Following her father's death she became even more suspicious, feigned illness, went with undesirable men and truanted from home. Because of alleged abdominal pain and vomiting, she was taken to a hospital and sedatives were administered for her nervousness. While in the hospital she became unclear, believed that efforts were being made by other patients to annoy and persecute her, saw horrible animals and reptiles on the wall and attempted to jump out of the second story window to escape her persecutors. At times imaginary voices spoke to her and she became suspicious that efforts were being made to put poison in her food. Her speech became slurred and she could not speak in a coherent, connected manner.

On admission to this hospital it was noted that the pupils were widely dilated, gait was unsteady, the tendon reflexes hyperactive and there were nystagmoid movements of the eyes. There was a marked acneform eruption over the face and upper thorax. The blood bromide concentration was 325 mg. per 100 c.c. She was confused, disoriented and unable to give logical or relevant answers, stating that her mind was not working right and she could not think. There was marked impairment of judgment, thinking and reasoning and she was unable to understand what was happening about her. After thirty-two days the bromide concentration fell to 40 mg. per 100 c.c. and she was no longer confused or bewildered and regarded her previous beliefs with amusement. Further examination and therapeutic efforts after the acute toxic psychosis had passed revealed that there was a marked disturbance of personality and character by reason of the faulty early training, but there were no residual effects of the bromide intoxication.

The presence of mild mental disorders indicates that the psychic reserve has been reduced to a minimum and that abnormal impulses, emotions and thoughts are not

fully under volitional control. In these cases bromide salts are frequently prescribed and may at first appear to produce relaxation and relief. However, when there is beginning accumulation of the drug this temporary benefit disappears and is replaced by an exaggeration of the pre-existing mental disorder with the addition of severe anxiety, restlessness and confusion. This means that the patient's already depleted self-control and integration have been further impaired by the intoxicating process and that the patient is no longer able to exercise any volitional control over the underlying mental abnormalities. The result is usually increased activity and excitement for which larger doses of bromide are administered and this vicious cycle is continued until a mild delirium or a profound stupor ensues. The same chain of events may occur in general hospitals when efforts are made to control these patients by haphazard bromide sedation, the drug being administered indefinitely on the ever-dangerous "continued order" or given at the nurse's discretion on a "pro re nata order." This is illustrated by the following case:

Case 2.—M. N., a white married woman, aged thirty-four, was admitted to a general hospital service because no arrangements could be made for psychiatric care. The family history revealed many nervous and mental disorders. The past history of the patient was essentially negative except for prolonged worry over the family history of mental instability and some dissatisfaction because of marital disharmony. Six months before admission, the patient became more nervous and tensional and during the ensuing months this deepened into a depression. Her regular physician prescribed "nerve medicine and pain pills" and shortly before admission she became somewhat confused and unclear at times and believed she had committed great sins.

After admission to the general hospital the patient was restless, nervous and tensional and sodium bromide gr. XX t.i.d. was prescribed for three days. At the end of this time she had become more depressed and agitated. The sodium bromide was, therefore, continued at the rate of gr. XV t.i.d. This drug was then administered on a "continued order" for twenty-six days because her condition became worse and it was hoped that further sedation would control her until admission to a psychiatric hospital could be arranged. After several days of medication it was noted that an acneiform eruption appeared over the face and upper thorax.

Her mental disturbance increased, suicidal efforts were frequent and episodes of confused, drowsy restlessness were noted. It became necessary to supplement the bromide by interval doses of paraldehyde. The patient became disoriented, bewildered and resistive to care and after a prolonged delirious episode she developed bronchopneumonia. During her hospital residence of thirty-nine days she had received at least 1,265 grs. of sodium bromide in addition to other sedatives.

On admission to the psychiatric unit the patient showed physical evidence of toxicity due to bronchopneumonia and some other factor. There was a slight acne over the face and shoulders. The concentration of bromides was 230 mg. per 100 c.c. of blood. She appeared dazed and confused, heard voices talking to her and saw horrible animals about the ward. A diagnosis was made of "acute toxic bromide psychosis superimposed on pre-existing depression."

Patients with organic brain syndromes present a similar susceptibility to delirious reactions associated with even mild intoxications. The impairment of their intellectual functions and the diminution of emotional control reduces their margin of psychic safety to such a degree that moderate states of bromism are sufficient to cause confused, excited psychotic episodes. Such a mental disorder was inadvertently produced in the following case:

Case 3.—B. K., a white woman, aged fifty-nine, was admitted to the hospital because of depressive reactions and suicidal attempts. She had always been a neurotic, unstable individual and had become depressed recently because of her advancing years and a fear of dependency. On admission she was tense, uncertain and attempted to hide her apprehension by forced humor and laughter. Physical examination revealed emaciation, marked physical weakness and evidence of mild generalized arteriosclerosis. The blood was negative for bromides. Psychological examination revealed mild organic brain disease with some intellectual deterioration.

An attempt was made to measure the permeability of the choroid plexus by the administration of sodium bromide gr. XV for five days. On the fifth day her mental symptoms underwent a marked change. She became extremely confused, alternately wept and laughed, heard imaginary voices threatening her and showed marked disorganization of thought. Aphasia and apraxia were noted during the following days. She confabulated extensively and told various bizarre stories concerning her vivid hallucinations and events at the hospital. Her gait was weak and staggering and she moved about in an aimless and restless manner. The bromide administration was stopped immediately and after eight days these striking symptoms disappeared, leaving only the pre-existing mild organic deterioration.

Cases with High Bromide Concentration Due to Cardiovascular-Renal Disorders

Frequently bromides are employed as a sedative measure in hard-driving, excitable individuals, especially in states of nervous tension following periods of excessive social activity or in overworked business executives. This type of individual frequently has an impaired cardiovascular system and bromides accumulate quickly in the blood whenever this system is disordered. For this reason, even small doses may soon cause a bromide intoxication. The increased

restlessness and anxiety which is due to beginning toxicity is frequently misinterpreted as due to a continuation of the original nervous tensional state and the drug administration is maintained with the ultimate production of severe intoxication, as is shown in the following case:

Case 4.—K. R., a white, married woman, aged fifty-nine, was admitted to The Neuropsychiatric Institute because of mental confusion, visions in which she saw herself tortured and delusions of marital infidelity.

The family history includes numerous instances of nervous, excitable individuals. The patient had been a woman of tremendous energy drive, had had numerous social interests and had been a community leader. She had been easily excited, tensional and nervous and always throwing herself into some activity. For the past one and one-half years she had received medical attention for hypertension. In the spring of 1938 she took on added social responsibilities and became exhausted and nervous and was given sedative medication. She soon became confused, believed her husband unfaithful, thought that neighbors were interfering in her family affairs and complained of dizziness and of seeing horrible visions. Her sleep was disturbed, she became restless and unable to relax and it was noted that her gait was staggering. On admission the patient was toxic and dehydrated, the only other positive physical findings being hypertension (162/110) and hypertensive heart disease. The blood bromide concentration was 410 mg. per 100 c.c. of blood. She was extremely confused, talked continually in a disconnected manner with marked slurring of speech and gave irrelevant answers. Occasionally she wept because she had been persecuted and her husband wanted to get rid of her. She was completely disoriented and could not understand why she was in a hospital. There was marked impairment of all intellectual functions.

For the next several days she continued to have vivid auditory hallucinations, numerous delusions of persecution and episodes of violent motor activity. The excitement was controlled by hydrotherapy and sodium chloride administered to hasten the bromide elimination. At the end of seventeen days the blood bromide level had fallen to 150 mg. per 100 c.c. and she became more cooperative and in touch with her surroundings, except for infrequent periods of mild confusion. She was discharged thirty-two days after admission as recovered from the acute psychosis and with complete insight into her mental disorder. There remained some excitability, talkativeness and emotional lability which was considered a part of her usual personality.

Bromides are especially contra-indicated in patients with cardiovascular-renal insufficiency and consequent disturbances in the elimination of water. The healthy renal epithelium eliminates bromides slowly and when for any reason the kidney function is impaired there is a rapid accumulation of bromide in toxic quantities in the various tissue fluids. If large quantities of fluid are then discharged from the body and the kid-

ney is unable to excrete a proportional amount of bromide there may occur a sudden and toxic concentration in the blood with signs of intoxication as shown in the following case:

Case 5.—M. B., a white woman, aged forty-seven, was admitted to the Department of Internal Medicine because of shortness of breath. Fifteen years before she had had rheumatic fever and five years ago noted dyspnea on exertion which gradually became more severe until five months before admission there was progressive orthopnea and cyanosis. Shortly before admission her abdomen and ankles began to swell. She had been receiving a pink liquid medicine.

Examination revealed a well nourished woman who was orthopneic, cyanotic and mentally slowed and dull. There was generalized pitting edema. Cardiac examination revealed an enlarged heart, mitral stenosis, auricular fibrillation and congestive heart failure. Laboratory studies were essentially negative, except for a bromide concentration of 175 mg. per 100 c.c. of blood.

Two days after admission she received 1 c.c. of an intravenous mercurial diuretic and the urinary output became 3,550 c.c. and the intake only 1,120 c.c. with a marked decrease in the edema. It was noted that she was drowsy, slept a great deal and that night she was found wandering aimlessly about the ward. During the next few days there was a further decrease in edema, but a rapid increase in the mental symptoms. She became very confused and uncooperative, wandered aimlessly about the hospital whenever she could escape the nurses and believed that efforts were being made to harm her. She maintained that members of the hospital personnel were attempting to chloroform her, that other patients were whispering about her and that she could see peculiar things happening on the ward. Her conversation was rambling and disjointed. The confusion and the delusional ideas partially disappeared on the sixth day after the diuresis, but she insisted on leaving against advice. Re-examination twenty days later failed to reveal any residual mental symptoms.

Cases Occurring Postoperatively

The period of convalescence from surgical procedures is frequently characterized by extreme nervousness and emotional instability. Bromides are often prescribed to alleviate these symptoms and to aid the patient in obtaining the necessary rest and relaxation. It must be remembered, however, that the postoperative patient has had a severe psychological trauma and may have markedly diminished psychic reserve and stability for several months. In addition, there often are prolonged postoperative physiological derangements which may predispose to bromide accumulation. These factors increase the danger of mental disorder associated with bromism even when small doses of the drug are used. Frequently such patients may augment the physician's sedation by proprietary sedative

preparations suggested by some friend. Such a train of events is demonstrated in the following case:

Case 6.—A. F., a white, married woman, aged forty-eight, was admitted to The Neuropsychiatric Institute because of confusion, depression and suicidal attempts. The past medical history is essentially negative except for two thyroid operations, the last occurring eleven years before this admission. In personality, she has been considered to be conscientious, frank, and emotionally stable.

Seven months prior to admission a pan-hysterectomy had been performed because of menorrhagia. The postoperative course was uneventful, but on return home she was nervous, tense, felt exhausted and feared that she had a serious cardiac disorder. Four months before admission to The Institute sedatives were prescribed and for a time she slept better, was more composed and less fearful. During this time she apparently took large quantities of a proprietary preparation containing sodium, ammonium and potassium bromides, apparently without the family's knowledge. After one month she became increasingly irritable and was depressed and frequently wept. Her behavior became increasingly impulsive and violent episodes were more frequent. One week before admission she attempted suicide.

On admission the general physical condition was good. There was an acneform eruption over the face and upper thorax which had only been present since the onset of the present illness. The blood bromide concentration was 270 milligrams per 100 c.c.

Psychiatric examination revealed the patient to be confused, disoriented, rambling and incoherent in her conversation and there was marked slurring of speech. She appeared fearful and bewildered, having been terrified by horrible and vivid visual hallucinations. There was marked interference with memory, thinking and judgment. Within three weeks the blood bromide concentration had fallen to 75 milligrams per 100 c.c. and the confusion, hallucinosis and depression had largely disappeared. There were a few residual symptoms, including occasional fearfulness, mild confusion and concern regarding her physical condition. These symptoms soon disappeared under further treatment and the patient was discharged from the hospital seven weeks after admission, at which time she was stable, composed and had no fears regarding her physical or mental condition.

Cases Associated with the Menopause

Nervous manifestations frequently occur at the menopause. During this period women appear to be especially vulnerable to mental disorders and great care must be exercised that their emotional imbalance is not further exaggerated by ill-advised medication. In the treatment of the menopausal syndrome, bromides have been extensively employed and in controlled dosages have been beneficial. In some cases, the patient may become discouraged because immediate improvement is not apparent and surreptitiously increase the dosage of the medicine. In other cases they may even secretly con-

sult another physician, who, not knowing the patient has been receiving sedation, may also prescribe bromides.

Case 7.—M. K., a white, married woman, aged forty-five, was admitted to The Neuropsychiatric Institute because of confusion, excitement, auditory and visual hallucinations. The past medical history was negative except for hypertension and previous amputation of both breasts for suspected cancer. In personality make-up the patient was considered to be cold, stubborn and unstable.

Several months before admission the patient became irritable, tearful and tensional, these symptoms being attributed to the menopause. Three months before admission she consulted a physician and received ovarian extract and a liquid medicine. After taking a considerable quantity of the liquid medicine, her symptoms became worse and she complained that words ran together when she attempted to read, outbursts of weeping became prominent associated with voiced suspicion of her husband's fidelity. When her condition became worse she was taken to another physician, who prescribed further sedation. Her confusion rapidly became more severe and the patient stated that she saw Indians in the house, horrible animals on the wall threatening her, and aeroplanes surrounding the house. At times she did not recognize members of the family. Imaginary voices constantly threatened her and insulted her character. She became more restless, excitable and fearful and the sedation was increased. Her voice became thick, her words slurred, her movements awkward and she was unable to judge distance or direction. There were complaints of blurring of vision and occasional body tremors were noted, and for the several days prior to admission the patient was semi-stuporous most of the time and she "acted just like a drunken person."

Physical examination was negative except for surgical scars and mild essential hypertension. The skin was clear and no eruptions were noted. The blood bromide concentration was 250 milligrams per 100 c.c.

Psychiatric examination showed her to be confused, bewildered, subject to auditory and visual hallucinations and restless and apprehensive in her general behavior. She frequently saw horrible animals about the hospital, heard voices threatening her constantly and was extremely resistive, believing that harm was to be done to her.

During the next five weeks there was a gradual decrease in the restless, confusion and hallucinosis and a return to her normal behavior. After the acute intoxication had passed she again was composed and sensible, her only residual symptoms being some tension and worry over her physical condition.

Cases Due to Self-Medication

The widespread practice of self-diagnosis of nervous conditions, headaches and "neuralgia" and the subsequent self-medication with various patent medicines is a frequent source of bromide intoxication. Many of these proprietary preparations contain bromide salts as the sedative principle in amounts sufficient to produce toxic states after prolonged or excessive use. These preparations are often taken indiscriminate-

ly by the laity in the mistaken belief that they might possibly help, and at least that they can do no harm. The usual history shows progressively heavier dosage to combat increasing nervousness, and with the onset of mental confusion the patient loses all reason and judgment regarding dosage and frequency and often takes tremendous amounts. When these patients finally come to the physician they present a bewildering medley of physical and mental symptoms, the diagnosis of which may be obscure unless the sedative history is elicited or the bromide detected by laboratory tests. In some cases the sedative addiction is concealed from the physician or is unknown to the relatives and the physician may innocently precipitate the final breakdown by prescribing bromides for the patient's obvious nervousness. The following is a case of self-induced bromide intoxication, the diagnosis of which was very puzzling because of a negative drug history:

Case 8.—J. B., a white woman, aged forty-six, was brought to The Neuropsychiatric Institute when her family noted that she was confused, unable to complete her sentences and often fell asleep while talking or doing household tasks. The family history was essentially negative. The patient had always been an unstable, tensional, hypochondriacal individual and two and one-half years ago had had a sub-total thyroidectomy because of nervousness.

For the past two years, because of domestic problems, she had been more nervous, had daily headaches and had remained away from the rest of the family, complaining of numerous symptoms. During this time she had been receiving thyroid substance because of possible thyroid deficiency. Three weeks before admission she was found sleeping on the floor.

On admission she was found to be confused and semi-stuporous and fell asleep during the physical examination. There were no positive physical findings and the blood sugar, nonprotein-nitrogen and blood cholesterol were within normal limits. The basal metabolic rate was -5 per cent. She was extremely bewildered, had numerous auditory and visual hallucinations, and believed that the hospital room was a remodeled room in her home. At times she was fearful and depressed and at other times was quite irritable. There was marked interference with all intellectual processes.

The family were questioned and denied that she had taken any drugs or medicine. Because of the hebétude and weakness, her condition was first considered to be hypothyroidism but studies failed to confirm this impression. Nine days after admission (a drug-free period) the bromide concentration was found to be 400 mg. per 100 c.c. of blood. When the family were confronted with this finding they admitted that because of headaches she had been taking about one and a half bottles of a widely advertised proprietary analgesic per week, but they had not mentioned this because they had not considered it a drug or medicine.

After two weeks the mental symptoms of bromide

intoxication had passed and the bromide concentration fell rapidly under elimination treatment. There were no residual symptoms from the acute intoxication but the patient still presented the same unstable, hypochondriacal personality which existed before the complicating toxic psychosis.

Summary

The purpose of this report is not to discredit the rational use of bromides or to minimize their possible benefits. The beneficial effects of the drugs, when correctly used, are recognized, but it is necessary to emphasize that there is an equal potentiality for harm when they are given injudiciously. Even in suitable cases these drugs tend to accumulate after prolonged administration and the blood concentration may soon exceed the safe level of approximately 125 mg. per 100 c.c. The physician must carefully select cases for bromide administration and insist upon an adequate fluid intake and sufficient chlorides (at least 15 grams of chlorides per day are necessary¹⁴ when the sodium bromide intake is 45 grains per day).

The physician must also be alert to the possibility that the patient may have already received large quantities of bromide from a previous physician or by self-medication. For this reason, these drugs should never be prescribed without careful inquiry into the history of medication. Even this precautionary measure is not always reliable and if there is the slightest evidence in the history or clinical examination of previous bromide ingestion, it is imperative to make a chemical examination of the blood or urine. This can easily be done by the method of Belote, who has described a simple laboratory test for the presence of bromides in body fluids such as urine, blood, saliva, sweat, gastric contents and spinal fluid. The test depends on the transformation of fluorescein into eosin when bromine is added to the former. The test is as follows: "Small strips of filter paper are soaked in a saturated solution of fluorescein in 60 per cent acetic acid. These are then allowed to dry and may be kept indefinitely as indicators of the test. The suspected body fluid is placed in a test tube. To this are added a few crystals of potassium permanganate. After agitation, a few drops of concentrated sulphuric acid are added and the fluorescein paper is held, after moistening with 2 per cent acetic acid, at the

mouth of the test tube. The presence of even minute amounts of bromine is at once indicated by a rapid change in color from the original yellow to a bright pink on the paper. The presence of chlorine and iodine in no way interferes with the detection of bromine in this test." If bromide is present, the blood concentration should be determined by the Hauptmann modification of Walters' method.⁷ If these precautionary measures are carefully observed we feel that bromide therapy is valuable when mild sedation is necessary. Bromide therapy should never be used as placebo medication.

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FEDERAL AND STATE COÖPERATION IN MATERNAL AND CHILD HEALTH*

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Twenty years ago the Children's Bureau of the United States Department of Labor, with the assistance of some 11,000,000 women organized under the auspices of the Women's Committee of the Council of National Defense, was engaged in a great "Children's Year" campaign under the slogan "The Health of the Child is the Power of the Nation." One year earlier, in 1917, the first Chief of the Children's Bureau, Julia C. Lathrop, had proposed a public program for maternity and infancy, resting upon the principle of Federal coöperation with the states, which had been well established in certain other fields,

notably Agriculture. The conception of the need for a nation-wide program for safeguarding the lives and health of mothers and children grew out of the work of the Children's Bureau, which was established in 1912 as an agency for gathering information concerning conditions affecting child life and disseminating it throughout the country. Authorized to "investigate and report * * * upon all matters pertaining to the welfare of children and child life among all classes of our people," the new Bureau set to work, making carefully conducted studies of maternal and infant mortality; issuing popular bulletins on prenatal care, infant care, and child care, prepared with the advice and under the direction of obstetricians and pediatricians of national standing; and coöperating with state and local

agencies, private organizations, and professional and lay groups concerned with advancing the health and safeguarding the well-being of the American child. Almost from the first, the activities of the Children's Bureau in the field of child health were directed by physicians.

During the period from 1921 to 1929, a beginning was made in direct Federal coöperation with the states, with Federal aid, in promoting the health of mothers and babies, but the work was interrupted by the termination of the Sheppard-Towner Act in 1929. When the Social Security Act was in preparation, the Children's Bureau, with the assistance of technical advisory committees on which the medical profession was represented, assembled the basic information and prepared plans for Federal aid to the states for extending and strengthening ma-

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ternal and child health services; services to crippled children; and child welfare services for the protection and care of homeless, dependent and neglected children and children in danger of becoming delinquent. These proposals, after consideration by the Cabinet Committee on Economic Security and by committees of Congress, were incorporated in title V, parts 1, 2, and 3, of the Social Security Act. Authorization of Federal aid to the states for general public health purposes was incorporated in title VI of the Act.

Responsibility for Federal administration of title V, parts 1, 2, and 3, is placed in the Children's Bureau. The United States Public Health Service administers title VI. Through informal contacts between the staffs of the two agencies, and through technical committees of the Interdepartmental Committee to Coördinate Health and Welfare Activities, very substantial agreement as to policies governing the relationships of the two Federal agencies with the state agencies responsible for the health and welfare aspects of the social security program has been reached. Similar coöperation has been worked out between the Children's Bureau and the Social Security Board, especially with reference to the child-welfare service program authorized in title V, part 3, administered by the Children's Bureau, and the program of aid to dependent children authorized by title IV, administered by the Social Security Board. Representatives of the three agencies, namely, the Public Health Service, the Children's Bureau, and the Social Security Board, served as the technical committee which developed the recommendations for a national health program approved by the Interdepartmental Committee to Coördinate Health and Welfare Activities, and presented to the National Health Conference held in Washington last July.

The programs of Federal aid for maternal and child health and general public health services represent for the most part an expansion in functions of health education and preventive health service long recognized as within the field of public health organization. The program of services for crippled children is the first program of Federal aid to the states for medical, surgical, and hospital care to be authorized. Michigan, of course, is especially interested in this part of the Social Security Act because of the

pioneer work, begun in 1913, under the Michigan Afflicted Children and Crippled Children's Acts. Experience in crippled children's services, as well as in maternal and child-health and general public-health services, furnishes many clues of importance in planning more comprehensive programs of health service and medical care. Among the subjects which are of particular interest in this connection, which I shall discuss with reference to experience in Federal coöperation with the states for maternal and child health and crippled children's services, are the following:

1. Medical direction, medical staff, and technical advisory service.
2. Federal-state relationships.
3. Personnel standards.
4. Relationships with medical practitioners and with public and private hospitals.
5. Extending, strengthening, and broadening programs of service.

I shall take up these points seriatim.

1. *Medical direction, medical staff, and technical advisory service.*—In the Children's Bureau, general responsibility for formulating and carrying out policies and recruiting personnel for the divisions of the Bureau carrying on health work rests with the Assistant Chief, Dr. Martha M. Eliot, a pediatrician formerly on the faculty of Yale University School of Medicine. The research work of the Bureau in health fields is carried on principally by the Division of Research in Child Development, whose Director, Dr. Ethel C. Dunham, also a pediatrician, was likewise on the Yale faculty. Responsibility for administration of Federal aid to the states under title V, part 1, is vested in the Division of Maternal and Child Health, whose Director, Dr. Edwin F. Daily, is a Diplomate of the American Board of Obstetricians and Gynecologists and was formerly associated with Dr. Fred L. Adair on the medical faculty of the University of Chicago. The Crippled Children's Division, administering title V, part 2, is under the direction of Dr. Robert C. Hood, a pediatrician formerly an instructor in pediatrics at the University of Cincinnati and later engaged in private practice. Members of a medical staff of obstetricians, pediatricians, part-time consultant orthopedic surgeons, and physicians with experience in

public-health administration, serve as assistant directors of divisions, experts, and regional medical consultants. Advisory and consultant service for public-health nursing, medical social work, and nutrition is given by specialists in these fields. General and advisory committees with professional representation from various fields assist the Bureau in the development of general policies.

Forty-eight states, Alaska, Hawaii, and the District of Columbia coöperate with the Children's Bureau in Federally aided maternal and child-health services. In every case, by the terms of the Act, responsibility is vested in the State health department. In each state, immediate responsibility for the program is vested in a Division of Maternal and Child Health whose full-time director is a physician, nearly always one having special experience in obstetrics, pediatrics, or public-health administration.

Review of the state maternal and child health plans for the current fiscal year shows that in 22 states maternal and child-health medical advisory committees have been appointed which are the maternal and child-health committees of the state medical societies or the state maternal-welfare committees. Ten of these twenty-two states and twenty-eight other states have one or more physicians on the general maternal and child-health advisory committee.

The Federal Act recognizes for the administration of services to crippled children whatever state agency is vested with responsibility by state law for such work. Since the act went into effect there has been a marked trend toward placing responsibility for this medical care program in the health department. At the present time, of the fifty states and territories coöperating under the Crippled Children's program, twenty-four administer crippled children's programs through the health department, fifteen through the welfare department, five through a crippled children's commission, and six through some other agency.

The state and territorial health officers have recommended that the director of the crippled children's program should be a physician, preferably one experienced in the care of crippled children, and the Children's Bureau in its consultant service to the states emphasizes the importance of such direction. At present, crippled children's services in thirty-one states have a full-time or

part-time medical director who is the executive in charge of the service. This represents an increase of eight states with medical directors in a period of one year. In addition, physicians have acted as full-time or part-time assistant directors in five states. Technical advisory committees, on which orthopedic surgeons and representatives of other medical specialties are represented, are utilized in thirty-three states. In other states the medical profession is represented on a general advisory committee.

2. *Federal-State relationships.*—It is the essence of the federal aid programs carried on under the Social Security Act, that the program within each state should be initiated, developed and administered or supervised by a single state agency clothed with effective authority and staffed by competent personnel. Subject to the very general requirements of the act, it is for the state agency to decide the particular character of the program which in its judgment is best adapted to serve the mothers and children of the state. The policy of the Children's Bureau is to bring to each state agency, through conferences, printed material, and consultant services, full information as to experience and developments throughout the country, and to encourage each state to build its own program in the light of its own needs and resources and with the advice of organized professional groups within the state. Hence, the programs vary widely from state to state, though all must be directed toward the accomplishment of the general objectives of the act.

Annual plans and budgets prepared by the state agency are reviewed by the Children's Bureau to determine whether they are in conformity with the requirements of the act. These requirements for the most part are the same for the maternal and child health and crippled children's services. For both are required:

1. Financial participation by the state.
2. Administration or supervision of administration by a single state agency.
3. Methods of administration (with certain exceptions as to personnel) necessary for the efficient operation of the plan.
4. Reports to the Secretary of Labor.
5. Coöperation with medical, nursing, and welfare groups and organizations,

and, in the case of crippled children, with the agency charged with vocational rehabilitation.

In addition, maternal and child health plans must provide for extension and improvement of local maternal and child-health services and for development of demonstration services in needy areas and among groups in special need. Plans for crippled children must provide for locating crippled children and for furnishing medical, surgical, corrective, and other services and care, and facilities for diagnosis, hospitalization, and aftercare, for children who are crippled or who are suffering from conditions which lead to crippling.

3. *Personnel standards.*—Although no Federal regulations regarding personnel standards have been issued, reliance has been placed very largely by the states, and by the Children's Bureau in its consultation service to the states, on standards drawn up by the advisory committees to the Children's Bureau, the organization of state and territorial health officers, and various professional organizations and specialty boards. The majority of the states have made every effort to secure qualified personnel for new appointments and to provide additional training through stipends for postgraduate study for those not fully trained. A review of state plans for crippled children's services for the fiscal year 1938 showed that the standards of recognized national professional organizations were taken into consideration by state agencies in the selection of personnel as follows: Surgeons, twenty-four states; registered nurses, sixteen states; medical social workers, nineteen states; and physical-therapy technicians, twenty states.

4. *Relationships with medical practitioners and with public and private hospitals.*—Encouraging progress has been made in developing mutual understanding between the staffs of the state health agencies and the practicing physicians in areas where activities are planned or in progress. Such progress was to be expected, since both groups have the objective of improving the health of mothers and children. In 1937, the official state health agencies in thirty-five states have aided in the establishment of prenatal clinics and child health conferences, which are being conducted in forty-two states. As

a rule, local practicing physicians have participated in these conferences and have been paid for their services. In 1937, more than 2,500 local practicing physicians were paid for services in such clinics and conferences. Postgraduate lecture courses in obstetrics for local practicing physicians were held in 316 centers in thirty-two states in the fiscal year 1937, and were attended by over 8,000 physicians. Postgraduate lecture courses in pediatrics were attended by more than 6,000 physicians in 243 centers in twenty-six states. In 1938, seven states provided postgraduate courses for local physicians in the early recognition and treatment of crippling conditions. The Michigan program includes orthopedic refresher courses or clinics established and conducted under cooperative procedures developed by the Crippled Children's Commission, the State Medical Society, and the Postgraduate School of Medicine of the University of Michigan.

Other assistance to local practicing physicians includes provision of obstetric or pediatric consultation service in areas where this had not been available, furnishing certain types of drugs or other supplies needed for maternal and child-health work, and providing nursing assistance for home deliveries in a number of areas. In a few places, physicians are being paid for obstetrical-delivery service for needy mothers.

Funds available under the maternal and child-health program are so limited that their use for payment of hospital costs has not been authorized. Proposals for expanding the program to include payment of medical and nursing care at delivery for mothers who cannot procure such care for economic or other reasons include provisions for payment of hospital costs in emergency cases.

Hospitalization is an item of major importance in the crippled children's program. Plans for the fiscal year 1939 show a total of \$2,219,113.30 budgeted for hospital care from federal, state or local funds, representing 40.5 per cent of the total funds budgeted.

The program of services for crippled children in most of the states has made it possible to utilize additional hospitals, both public and private, on a purchase-of-care basis, and so to bring hospital care nearer the child's home. State plans for 1939 showed 592 hospitals approved by state agencies for the care of crippled children.

Of these, eighty-seven were public hospitals and 505 were private hospitals. Michigan is included in a group of ten states that have made extensive provision for decentralization of hospital service.

Questions of fee schedules for physicians and surgeons and schedules of rates for hospital care have presented many difficulties in the crippled children's program, but in most states marked progress has been made in the direction of developing, with the aid of professional advisory groups, schedules for fees and rates that afford, in some degree at least, reasonable compensation and do not absorb an undue proportion of the total cost of services essential to the complete rehabilitation of the crippled child.

In planning for the use of both public and private hospitals it has been necessary to safeguard the control of the state administrative agency with reference to general policies, particularly with reference to the admission and discharge of children and the general quality of hospital care, while at the same time preserving the full liberty of the technical staff of approved hospitals with reference to medical and surgical care.

Development of standards governing the approval of hospitals for service in the crippled children's program has been an important part of state plans. Recommendations made by the Children's Bureau's advisory committee on services for crippled children with respect to the selection of hospitals used for the care of crippled children have been of great assistance to the states in setting up standards for the selection of hospitals. With few exceptions, the hospitals which are being used by the state agencies for the treatment and care of crippled children are those that have been registered by the Council on Medical Education and Hospitals of the American Medical Association and that have been approved for surgical service by the American College of Surgeons. In addition to meeting the requirements of the American College of Surgeons, and the use of other criteria, such as registration by the American Medical Association and approval of the American Hospital Association, state agencies have utilized the recommendations of the Children's Bureau advisory committee; that is, that these hospitals have on their staffs qualified orthopedic surgeons, nurses, physical therapy technicians, and medical social workers, and have physical therapy equip-

ment. Many hospitals have improved their equipment in order to give more adequate service to crippled children because of the increased number of children being referred to them by the state agency.

5. *Extending, strengthening, and broadening programs of service.*—Before the plans for services for crippled children under the Social Security Act were developed, in a number of states no state agency was provided for such services. In others, public funds were available for only one or two types of service, such as hospitalization, or hospitalization and diagnostic clinics. The coöperative program has been in operation less than three years, yet in that period of time much has been accomplished in extending the program to reach additional children and in providing more complete medical and social care for the children receiving service. Most of the states have made special efforts to solve the difficult problem of extending satisfactory aftercare services to children in rural areas. There has been a growing awareness in the states of the value and importance of meeting the needs of the child in his own home and his own community if possible.

Progress has been made in developing means of locating crippled children, including the use of birth certificates and epidemiological reports, and in building up state registers based on uniform procedures for recording and classifying cases. As of March 31, 1938, the total number of crippled children on the registers of forty-three states, Alaska, and Hawaii, was 130,610. Diagnostic clinics have been greatly extended and their services improved. Studies of intake and discharge policies and procedures have been made by the Children's Bureau in twelve states. In states where children were accepted for care through court commitment, as in Michigan, there was great variation in understanding of the meaning of commitment in terms of continuing parental responsibility, and in commitment procedures. Frequently, the judge had no information regarding the estimated costs of medical care, and only very meager medical and social information. Divided responsibility between courts and administrative agencies creates many difficulties and tends to hamper the development of sound administrative procedures.

Need for greatly expanded facilities for

convalescent care, either in convalescent homes or boarding homes, has been conclusively shown by the studies and by general experience. Aftercare of the crippled child through public-health nurses, medical supervision where needed, and social workers is a phase of the program which was almost entirely lacking in many states, but which is recognized now as of very great importance if the benefits of the expensive and prolonged care required in most cases are not to be neutralized, and in many instances lost, through lack of understanding of the child's needs by the parents and adverse conditions in the home. The importance of the medical social worker as a key person in the crippled children's program, who can help to mobilize the resources of the state or community for health care and social service both before and after hospitalization, is being stressed increasingly in the development of state programs.

Perhaps in no other type of service for children is there such a distinct need for correlation of all services affecting the program as in work for crippled children. The state agencies are utilizing extensively such state and local services by both public and private agencies. As state-wide programs of maternal and child health and social services, aided through title V, parts 1 and 3, of the Social Security Act, and through public-assistance provisions of the Act, become better established, it may be possible (a) to place upon state and local maternal and child-health services the major responsibility for locating and diagnosing crippled children, providing, in coöperation with the crippled children's service, expert consultation to determine medical and surgical need in every case where hospitalization or surgical care may be involved; (b) to place upon state and local public welfare agencies primary responsibility for determination of economic and social need, subject to review and final approval by the crippled children's services; (c) to place upon maternal and child-health services, especially public-health nurses, primary responsibility for aftercare, with special reference to home care and diet required by the child's physical needs, aided by physical therapists and other specialists on the staff of the crippled children's agency; (d) to place upon public-welfare services primary responsibility for such aftercare services as involve assistance in dealing with adverse home situations, aided by medical

social workers on the staff of the crippled children's agency; and (e) to coöperate with the educational and vocational rehabilitation authorities in meeting the educational and vocational needs of the crippled child. To work out satisfactorily all these relationships, so that a complete program for meeting the needs of each crippled child, under the general supervision of the crippled children's agency, may be developed, is a major task in health and social planning and requires that the state agency be under competent and imaginative leadership and staffed with specialists who can serve as consultants and otherwise give leadership in the various fields of service, including medicine and surgery, public-health nursing, and medical social work.

Michigan, because of the length and breadth of its experience in caring for afflicted and crippled children, and the well-accepted responsibility of the state for providing care, has an opportunity to make an outstanding demonstration which will have great significance to the nation. Careful study should be made of the ways in which the state program may be strengthened and enriched, and its relationship to other public-health and social-work programs in the state may be further developed. As state and local welfare services are extended throughout the state, as provided in the legislation to be acted upon through referendum in November, trained social workers should be available in each county, who can assist in the determination of economic and social need. Review of the Michigan program indicates that the quality of medical service should be raised by adding consultation service, especially pediatric service, on a state-wide basis. Review of recommendations of local physicians by specialists, prior to acceptance for care or at the beginning of care, by the official state agency, should be extended throughout the state as urged by the medical profession, with the aim of providing the best quality of service at reasonable cost, requiring the shortest possible period of care away from home. The need of medical care in their homes for children not requiring hospitalization should be considered. Aftercare service to the child discharged from the hospital should be strengthened.

Upon the Michigan medical profession, whose devoted service throughout the years

has meant so much to the crippled and afflicted children of the state, and upon the people of Michigan who are concerned that all children suffering from physical handicaps and deformities should be restored, so

far as possible, to the possibility of full and rich living, depends the further extension and development of a concept of public responsibility to human well-being that is rapidly receiving nation-wide acceptance.

OCCUPATIONAL HYGIENE IN MICHIGAN SIXTY-FIVE YEARS AGO*

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"A stump speaker enlarges his lungs by his vociferations, yet his windy harangues may bring on a bronchitis, which will stop his breathing in the end."

This quotation characterizes the terse and pungent language of the first known documentary publication in Michigan dealing with occupational diseases and industrial hygiene.

Michigan's Board of Health was created in 1873, with Dr. H. O. Hitchcock as president. The total expenditures for all the first year's endeavors amounted to \$28.75. Early in its activities this board committed itself to the preparation of a detailed annual report. One member of this early board, a layman, Charles H. Brigham, of Ann Arbor, was charged with responsibilities as to the public health aspects of occupations. In 1875, he presented his first formal report which was published in the Board's annual record for that year.

In 1935, sixty years later, the State Department of Health for Michigan first created a separate unit division of Industrial Hygiene. In many quarters this was regarded as an "innovation," "revolutionary," "pioneering," "far-sighted,"—all overlooking the historic fact that this field was almost the very first to which the newly created Board of 1873 turned as a needed objective in its activities.

It is a cause for wonder that in those days of almost pre-industrial pursuits in Michigan so much wisdom was the lot of this prophetic writer and public health servant. With the deletion of only a few paragraphs, this publication might well be utilized today as a fighting plea for the better control of health exposures for industrial workers. In order that we may learn from the past and at the same time pay tribute to Michigan's pioneer industrial hygienist, various excerpts are now taken from this ancient public document:

"Individual men and women are rarely willing to allow that the calling which they have chosen is the cause of the disease which they may happen to have; and employers will insist that the health of their workmen is good, however dangerous their oc-

cupation may seem to be. The owner of a gunpowder mill will bring facts to show that his workmen are safer in their place than the laborers on a farm, and in proportion to their number fewer die violent death. The white lead manufacturer has figures to prove that his workmen are likely to live to a good old age. Interest and prejudice unite to underrate the risk and the disaster in one or another kind of labor. Circulars to factory owners about the health of their operatives, will bring back a very vague and uncertain report, if they get any answer at all; and questions on the spot are often treated as intrusive and meddlesome. There is no charge to which men are more sensitive, than even an implication, that in their work they are injuring their own health."

How different this day. Workers are prone to attribute every illness to work as the cause and cherish the hope that in any period of work idleness, some occupational disease may be the basis of income. Witness the avalanche of occupational disease claims during the depression years of the "thirties." Employers rarely "talk down" the possibility of health exposures in their plants. Manufacturers have knocked the scales off their eyes or had them knocked off until they see with clarity that industrial hygienic exposures may be realities. The viewpoint of the enterprising industrialist is commendable.

"Who can say what proportion of the malady comes from the kind of work and what proportion from other sources, bad surroundings, bad personal habits? The pains of the seamstress may come from her tight lacing more than from her much sewing; the headaches of the teacher from her late hours

*From the Industrial Health Conservancy Laboratories.

and loss of sleep quite as much as from her cares in the school room. Before we can draw satisfactory inferences from cases of ill health, we must know much more than the kind of occupation, we must know the antecedents and the general way of life, of men and women whose cases are reckoned;—where they live, who their parents were, what their methods and associations are. A work which is healthy enough in some places, may be very unhealthy in others. A scrivener, for instance, is robust in Naples, while he is pale and haggard in New York, for in the one city he writes in the open street, under the clear sunlight, and in the soft air from the sea, while in the other city, he is probably cooped in a dismal back attic, by the dim light of a narrow window with only poisoned air to breathe."

"The sewing girls of the cities ought to die much more rapidly than they do die, when one considers the character of their work bending over a machine fourteen or sixteen hours a day with no change of position."

In a new world, powered machines and eight hour work days leave these garment workers still so pretty as to appear in Broadway shows promoting garment makers unions—"Pins and Needles."

"No occupation in human life is absolutely free from danger to life and health. Some are healthier than others, but all have some vice which shows itself sooner or later. No calling is known to man which gives as it is ordinarily followed, just that balance of exercise to mind and body, to muscles, nerves, and physical functions which makes the state of perfect health. No occupation can be chosen in which there is perfect assurance of immunity from all the ills to which the flesh is heir. No one can prevent the inevitable issue of old age and death at last. These come in every calling."

Sixty-five years later, the bane to employers is the unwillingness of older workers to face the issue of decrepitude. To them old age is an occupational disease deserving compensation; senility is an "accident." Old age security and unemployment insurance may yet save the onslaughts of the broken down worker on the employer's compensation fund. Security for the aged is most desirable but this should not be procured through spurious claims for work diseases.

"It is impossible to make some trades healthy by any contrivance—such for instance, as knife-grinding and diamond cutting and soap boiling, and many more in which the peril to vital organs is direct and constant. A large number of the occupations of civilized life, important, indispensable, involve this constant danger, from which there is no escape, which belongs to the occupation. Cotton spinning, flour grinding, watch-making, shoemaking, lace-making, the trade of the painter, of the soldier, of the sailor, of the physician—how many trades of the highest need in social life are full of hazard to health and safety. It might almost be said that fully one-half of the various callings of civilized man, in the way they are carried on, are direct temptations to disease."

"The way they are carried on" has robbed many of these trades of their "temptations." Regrettable it is that this able observer for whom this is written in tribute sixty-five years later might not have known that in 1891, Acheson, a chemist, in Monongahela, Pennsylvania, seeking to make artificial diamonds by fusing clay and coke in a make-shift miniature electric furnace contrived from a plumber's solder pot, made not diamonds but a more priceless thing—carborundum, a synthetic abrasive destined to promote mass production in many ramifications, but in particular to liberate all "knife grinders," cutlery grinders, tool grinders from the ominous threat of silicosis—the great descimator of natural stone workers. The dusts of carborundum and emery are harmless as producers of significant dusty lung diseases. Silica dust as found in edge tool grinding has killed so many workers that no statement about it throughout this author's paper may be labeled as extravagant.

"There are some adjuncts of different kinds of labor which are always injurious, the harm of which cannot be argued away. Dust first and on the whole worst, which is the plague of more callings than any other. Dust is not healthy in any place or of any kind, whether it be in the potato patch, or woolen mill, or grist mill or iron mill, or a carriage on the highway. That kings and cardinals snuff the dust of tobacco does not rescue this aromatic powder from the common sentence. Dust is the omnipresent nuisance of labor."

"The powders which whiten clothing, and the dyes which enable fashionable women to show themselves gayer than lilies of the field, are wrought at the expense of human life."

"The clean work of the bleachery may become as fatal to health and strength as the foul work of the sewer. Chlorine is even more deadly in the sensitive air passages than fetid hydrogen (hydrogen sulfide?)"

"The fact that noxious odors after a time cease to be noticed, does not make them salutary, or neutralize their bad influence. The smell of the stable, of the tan-yard, of the shambles, of the dissecting room, of the tripe factory, of the paper mill, of the woolen mill, may become agreeable to the operatives, but the process of coming to enjoy these perfumes, so repulsive to the natural senses, is not a good one."

"In spite of the praise of onions in their digestive help, we may question their sanitary value for the olfactory nerves, and any fondness for their pungency is a depraved taste in one direction, however healthful it may be in another."

At this far later period, odors still are without control. One of the most difficult problems of air conditioning is the inability to remove the odors of stale cigar and pipe smoke that cling to drapes, upholstery, and clothing. The offensive odors of the petro-

leum refinery may travel a distance in excess of twenty miles. Newer types of paper mills contribute odors more distressing than any known at the time of Brigham's observations. Ozone, chlorine, and other chemicals have been applied to gross exposures but only with desultory results. Fortunately odors do not themselves induce serious disease. No less through the causation of nausea, limited breathing, loss of appetite, mental irritation, they still may be rated as disturbing.

"There are men whose work must be always in loud, or sharp, or harsh, or strident sounds, which strike or vex the ears. Boiler makers, for instance, have to work in incessant pounding upon resonant metal. In a cotton mill, the air is full of buzz and whirl, and chaotic roar, which bewilders and confuses the occasional visitor. The city editor in his office must think and write with the din of rattling wheels on stony pavements all the time in his ears. The brakeman on a railway cannot get away from the noise of rolling axles and shaking joints. Men get wonted indeed to these nuisances, yet this reconciliation to noise does not set aside the essential evil. Even musical sounds may become peril to the nerves when they are long continued and mechanical. The crooked back of the organ grinder is not his worst misfortune. A man who has to do his daily task with violin practice in the room above him and piano practice in the room below, risks his hearing if not his sanity, almost as surely when the practice is accurate as when the practice is blundering."

Fortunate, indeed, was the Reverend Mr. Brigham, in his comparative freedom from noise and other external stimuli, despite his earnest protestations otherwise. Day by day, urban life affords not less than a hundred fold more external sensory stimuli, what with night made hideous by radios, telephones, automobiles, horns, airplanes, apartment neighbors, flashing electric signs, nearby factories, streetcars—people whose habits turn night into day. A hundred years ago the most disturbing noise common to village life and the one that serves as the prize example of unwanted and disturbing sound was the crack of the whip as some driver threatened a lagging horse. Compare that with the irritation that comes to a would be sleeper when some six families returning from the movies at midnight decide that a little radio music is in order.

"How much of the beauty made and revealed comes in the ruin of those who bring it."

"Deformities of the frame are another probable result of work in some of the occupations of men. The stoop of the scholar is proverbial, and his occupation is not the only one that is marked by round shoulders and a crooked back. Other work twists the body sideways, and confirms curvature of the

spine. Other work may make bandy legs, draw one shoulder down or the other shoulder up, or enlarge the joints, or derange the adjustment of the physical organs. One kind of work develops muscles abnormally, another kind leaves most of the muscles weak and flaccid. Any work is unwholesome which draws away strength from one set of organs to give it to another set, or which distorts the body, and there are not a few mechanical employments which do this, all the more in their improved processes. They make the men as crooked as the machines and as eccentric in their movements. The conventional posture in work is often very disastrous to bodily symmetry. That the Turks are so often bowlegged probably is the result of their crossed and doubled extremities as they squat on their counters; and no better fate can be expected for Christian tailors who assume that position. A shoemaker, on his low bench bending all day long over his stitches and his lapstone, may be a virtuous man, but he can hardly remain 'upright' in the literal sense of that epithet."

"Dangerous exposure, too, is a risk which in some occupations men are called to meet, exposure to heat, exposure to cold, exposure to accident. Some occupations keep the workman in a temperature too high for a salamander, others keep them in a temperature more congenial to a white bear or a walrus than to a man. It is not wholesome for a man to be roasted or frozen in his work, to be always melting in perspiration, or always shivering in chill."

"No contrivance has yet been invented which can give perfect atmospheric conditions to every kind of toil, and get clear of all the hazard of moist and dry, of hot and cold, of bracing and debilitating atmosphere."

The boon promised in air conditioning—artificial climates—has not been fulfilled through the acquisition of air that duplicates the qualities of a hill-top air on a spring morning. "One man's meat is another man's poison" is more obvious in air conditioning than is desired by the air conditioning equipment manufacturer.

"These illustrations of the risks incident to the various ordinary occupations of man are enough to show that none of these occupations are altogether wholesome. We might show that in another way, by simply enumerating the various sorts of disease which can be directly traced to one or another kind of work—the different organs of the body which are affected. Some kinds of work bear hard upon the digestive system, and make dyspeptics. Others trouble the liver—make it torpid, slow in its action, and so a clog in the body. Others press upon the brain, destroy its vigor, and reduce it to softening or insanity. Some kinds of work ruin the skin; others spoil the secretions, and show their mischief in the glands and the kidneys. There are toils from which the bones become brittle and the teeth decay; there are toils which make the heart beat fiercely, and the blood rush like an angry river. Some of the noblest toils are most wearying, and fatal to nervous harmony, while others have dullness and sluggishness as their certain issue. Sometimes the occupation has one special danger which can hardly be escaped, at other times it has a mingling of dangers."

Opposite every item of possible injury listed by this early writer might be placed a

series of substances now applied in industry capable of provoking the pathology mentioned. For instance, he notes, "Some kinds of work ruin the skin." Industry of today utilizes no less than 900 materials that attack the skin leading to industrial dermatoses of various forms.

"In what has thus far been said, only the direct influence of different kinds of work upon bodily health is considered. But occupations act upon health quite as effectually in their influence upon the mind, as they are elevating or depressing, as they are concerned with little or large things, as they are routine or venture, drudgery or speculation, as they have variety or are all in one kind. Some sorts of work foster melancholy, perpetual sadness, a brooding reflection which hinders sleep and spoils digestion. An undertaker, for instance, who handles the dead every day, and deals in the trappings of woe, ought not to be a cheerful man, even if he is an exemplary Christian."

A banker's business is dangerous to his health in such a time as this, when he cannot gauge the popular madness, or tell what kind of money the people will choose, or what the dollar will be worth in the near future."

"Another, of sensitive conscience, loses his calmness of soul, because the exigencies of his business require him to fall from his moral standard and do acts that are questionable. Another, holding office of trust, is burdened by his responsibility, or vexed by the trammels which hold him back. He cannot do what he wants to do, what he ought to do, what he feels others will expect him to do. Another, in similar position, is made unhappy by what the newspapers and the politicians say of him, by their charges against his integrity, their sneers, their insults, their caricatures, their misrepresentations, the lies which they tell."

"Any occupation which involves or stimulates mental and spiritual troubles is as truly bad for health as if it crooked the spine or stiffened the knee or paralyzed the bodily organs."

Possibly this pioneer as he composed his remarkable paper fondly conceived that by 1940 all mental and emotional stresses would have been eliminated from human life. He may have contemplated mental processes purely on a basis of reality and objectivity. Were he to return, bringing with him Moses and Aristotle, all would be struck not so much by the differences in man's behavior in contrast to that of their respective periods as by their utter conformity. Locked in an assembly room shorn of telephones, loud speakers, electric lights, air conditioning, typewriters, and other such mechanical contrivances, any long dead visitor might participate in general deliberations with comfort and facility.

"There never were so many trades in the world as there are now. There are far more products of industry in various kinds in the ordinary Michigan

homes than there were in the great palace of Solomon, the magnificent Hebrew king. In the matter of work, the tendency is toward diversity and not toward unity. While science is bringing the forces of the physical world together, reducing them to a few elements, or to a single element, civilization only divides and multiplies the arts."

"One of the great industries of this land, which today gives work, and profit, and support to not less than a hundred thousand of men, women and children, the drawing and refining of petroleum, was not known fifteen years ago. Another art, the taking of photographs, which counts its workmen by thousands, is wholly of this generation."

"Some may die sooner in consequence of the kind of work which they do, but nearly all will die of want if they do not some kind of work."

"One is never in more danger physically or spiritually, than when his permanent occupation is no occupation, only in killing time."

Compare these sagacious writings with a recent statement by our contemporary Sir Thomas Oliver when he said, "The most grievous of all occupational diseases is that of having no occupation."

"The safeguards against danger in work are of various kinds. Some are in outward appliances, some in precautions, some in diet and regimen, some in antidotes. In some kinds of labor the safety can only be gained by outward appliances. A stonemason, for instance, or a knife-grinder, must have some barrier against the dust which his work raises—some mask to protect his eyes or lungs."

"Thousands of lives are lost in such occupations from the recklessness which casts aside these ready aids."

"There ought to be a compulsory rule requiring all workmen in a cutlery workshop or in a stone-cutting shop, under a roof, to wear a covering for the head which shall be impervious to the coarser particles; as fine a mask indeed, as a clear sight of the mask will allow. Added to this should be some contrivance which will blow the dust away from the workmen; should cause a current of air strong enough to carry it out of the workshop. Such contrivance may be easily provided."

"Steel and stone workshops, without this protection, ought to have a convenient graveyard in their rear."

"Many occupations may be rendered comparatively healthy by some contrivance for consuming the smoke, which is now allowed to escape and to pollute the air."

"It is much to be desired that the ingenuity which is turned in the direction of labor-saving should be turned also in the direction of health saving in the processes and implements of human toil."

"Phosphorus may be, as the philosophers tell us, the life of the brain, and the life of the thinking soul; that fact does not disprove the fact that in its manipulation it is a deadly foe to the life of the body. And it is a heavy penalty paid for this cheap and ready bringing of light, that the match makers get sorrow and darkness for themselves in bringing light to others."

It is no longer commendable that industry in any of its ramifications operate graveyards as rear door adjuncts. The introduction of the very types of protective meas-

ures together with many additions has made this unnecessary.

"Dry dyspeptics in our land deplore the madness which wastes so much time in ball matches and boat races and excursions, but such things drive away dyspepsia, though they may not fill the coffers."

"Tonics, and alteratives, bitters, and blue pill, will not counteract the poison in the air, or the curse of dampness and darkness. It is the worst of quackery to pretend that particular trades and professions have their appropriate medical antidotes, that one nostrum is efficacious for ministers, another for miners, and another for scavengers. Universal remedies, like Brandreth's pills, are bad enough, but specific remedies against the ills to which certain trades are liable, are a still worse delusion. Any business which requires him who follows it to carry a panacea in his pocket, to be shaken and taken five times a day, ought to be left forthwith."

"Society has a right to say as much as this: that deadly trades shall be allowed to destroy only those who voluntarily choose them, and that no occupation shall become a nuisance or a danger to the homes or the shops which surround it. It has a right to put specially unhealthy occupations under a sort of ban, to warn against them, to isolate them, to make a quarantine for them as much as for infectious diseases."

"He must build his powder mill away from the village and the main thoroughfare. He must set his soap factory where the prevailing wind will carry off its fetid odors. He must not put his stable close to the windows of fine drawing rooms, to pour into these its redundant ammonia. He must not set his stamping machines where their thud and shock will stun the sensitive ears. In proportion to their damage to the health and safety of the general public, must the unhealthy occupations be kept at a distance, out of sight and hearing and of contagion."

Vain is the concept that dangerous industries may be isolated. Many a manufacturer has sought to establish an offensive factory far remote to human habitation only to find before his factory roof has been installed, workers' homes are springing up all about him. Hot dog stands and filling stations pre-empt nearby corners. A grocery, garage, and real estate office appear in due course. Soon these outraged residents and business men demand of the courts injunctions barring the well meaning manufacturer from polluting the atmosphere to be breathed by these innocent and suffering citizens.

"Too many of the inventions which have abridged labor have brought disease in this service. It is time that genius should undo the evil that genius has done."

Already "genius" in the form of industrial hygienists, physicians, engineers, chem-

ists has undone some of the evils of dangerous trades. But it is to be remembered that no genius or manufacturer if he be other than a genius created all of the health exposures of industry. Nature provided lead that is toxic; silica that causes silicosis; benzol that is a poison. All too often the attitude of the public is to culminate the manufacturer as though he created the dangerous properties of work materials. While this is ludicrous, it is no less the obligation of the manufacturer to manipulate harmful work materials only under such conditions that no worker may suffer injury.

Regardless of the source of the man-damaging activities in industry, the industrialist no longer is blind to their presence. Already in many industries the protection of the worker is as significant in the plant's operations as the turning out of its products. The development of mass production in this country has following in its wake the actuality or potentiality of nearly 2,000 occupational diseases. This evil eye that pursued and overtook industry possibly reached the peak of its malactivity about 1933-1935.

In this year of grace, the potential causes of occupational diseases in America's industries are without precedent, but the actual number of cases is on the wane. Industry will continue to grow, barring catastrophies; the possible injurious materials manipulated by industry likewise will be added to year by year. No less, except under the emergencies of war and similar unwanted happenings, real cases of trade diseases will lessen. No paradox confuses this statement. Preventive measures make possible the use of any substance necessary to industry. Occupational diseases ever will be a threat, seldom will they become actualities.

"It is time that genius should undo the evil that genius has done." This challenge was accepted by industry. Much of the evil has been undone.

The anlage of the well protected state of Michigan industrial worker as he daily goes about his duties substantially free from direful risks to his health in no small measure may be traced to the facile pen of Charles H. Brigham—Michigan's first industrial hygienist.

THE JOURNAL

OF THE

Michigan State Medical Society

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DECEMBER, 1939

*"Every man owes some of his time to the up-
 building of the profession to which he belongs."*

—THEODORE ROOSEVELT.

EDITORIAL

THE HUMAN FOOT

WITHIN the past two months we have published reviews of two important books† on diseases of the foot, by well known medical publishers. The graver foot conditions such as deformities and fractures usually receive adequate attention from the orthopedic surgeon or from the general surgeon and general practitioner. The minor foot troubles, if they receive any attention at all, are treated by the chiropodist or the so-called "foot specialist." The

almost universal minor foot disorders may be seen by observing people on the street or about their daily occupations. Corns are of ancient lineage. Even Shakespeare, who has overlooked nothing that pertains to humanity, has included them among the ills that flesh is heir to.

"Welcome, gentlemen! ladies that have their toes
 Unplagued with corns will have a bout with you:
 Ah ha, my mistresses! which of you all
 Will now dery to dance? she that makes dainty,
 She, I'll swear, hath corns."

Fashion is often the dictator that results in so much discomforts. There is as much individuality in feet as there is in the human body itself, yet many who content themselves with shoes made by mass production insist on tailored or made-to-measure clothes.

Anatomically, the foot is as complicated as the hand. It is, however, heir to a greater number of disorders due to various things, such as its encasement from light and ventilation in a more or less ill-fitting shoe, to the fact that it bears the weight of the body and either becomes or tends to become edematous with pathology in the body itself or with injury to the venous and lymph circulation when the foot itself is injured. Then there are certain dermatoses of the foot in a class by themselves.

Perhaps no other part of human anatomy has become so much altered in response to evolutionary demands. Omitting the millions of years required to reach the arboreal stage of primate existence, we have the insignificant heel of the arboreal primate whose greatest concern was prehensile, namely, the ability to grasp the trunk of a tree in climbing. When our ancestors descended from their high perch, the demand placed upon the foot was that for a base or pedestal to support the upright body. This called for a larger heel and other important changes in the longitudinal and transverse arch of the foot. The upright position assumed by man placed greater stress on the circulatory vessels of the leg as well as the arteries and veins of the foot. The very fact of man's uprightness (in a physical sense) has made possible, particularly in his more advanced years, varicose veins, leg ulcers and other pathology either purely local, or, as intimated, due to systemic conditions.

Regarding the shoe. Manufacturers have endeavored to meet the requirements of the greatest possible foot comfort. Dominated

†Dickson, F. D., and Dively, R. L.: *Functional Disorders of the Foot*. Philadelphia: J. B. Lippincott Co., 1939.
 Hauser, E. D. W.: *Diseases of the Foot*. Philadelphia: W. B. Saunders Co., 1939.

by the dictation of fashion, they have not wholly succeeded. We wonder how much assistance and encouragement they have received from the medical profession and particularly the orthopedic surgeon. The human foot is a big field for the kind of preventive medicine the orthopedist is capable of practicing. The two works mentioned here will repay the closest study and we would add the name of a third, namely, the work of Morton, which is a classic on the subject.

HIGHWAY SAFETY

ACCORDING to P. G. Hoffman, president of the Automotive Safety Foundation, the fatality rate for 100,000,000 vehicle miles the first six months of 1939 was 10.9. This is a reduction of 37.3 per cent in four years. In other words, if the fatality rate subsequent to 1935 were maintained, 29,000 more persons would have lost their lives. The four year decrease in fatalities has also been accompanied by a decrease of 1,000,000 accidents as well as the elimination of one billion dollars in property damage. Hoffman is optimistic in the prediction that in another four years highway fatalities may be reduced to six per 100,000,000 vehicle miles.

All this is pleasant reading. A slowing of the tempo of American life and a little more consideration for the other fellow; in other words, if the manners of a well ordered home were put into practice on the streets and public thoroughfares, the traffic problems would be near solution.

A menace to road and street safety is the bicycle, which has become recrudescant of very recent years and, like proverbial necessity, knows no law. The majority of bicycle riders are children who pay not the slightest regard to traffic regulations to which motorists must conform. No one wants to injure a child, yet the chance some children take with their lives is horrifying. Here their parents are to blame. Children who cannot be controlled or who are unmanageable by their parents should be deprived of the privilege of the public highways. If there are laws governing bicycles on the streets, they should be enforced. It is not a matter of rights. The motorist is taxed in every conceivable way for the construction and maintenance of streets. The bicycle con-

tributes nothing. The motorist has a right to feel that the highways are safe from unexpected and lawless cyclists. It is hoped that time may soon come when police authorities will cease to wink at children riding double on bicycles and running through red traffic lights and stop streets without any regard to what might be dire consequences.

WAR

A SUITABLE subject for discussion in a medical journal? Yes. There is perhaps no other profession so much concerned. The object and purpose of medicine is the antithesis of war. One destroys life and maims those who escape destruction; the other conserves human life and strives to alleviate suffering. Everyone's earnest hope is that hostilities in Europe may soon cease and that the common sense of most may hold fretful realms in awe, when

"The war drums shall throb no longer
And the battle-flags be furled,
In the Parliament of Man
The Federation of the World,"

when the heavens shall be filled with commerce, instead of "ghastly dew" from the "nations' airy navies."

Animal passions, to which emotion is akin, served a useful purpose as a means of protection when might was right in the early evolution of the race. With the growth of civilization, reason has, to a large extent, prevailed over brute force. War, however, is a throw-back, a reversion to primitive savagery. It results in no useful purpose. There are no victors in war any more than there are victors following an earthquake disaster or a volcanic eruption. Emotions should always be kept within control because, when out of bounds, they tend to dethrone reason and to set judgment at naught.

"Can you tell whether war be a cause or a consequence?

Down with the passions that make earth hell.
Yea, down at your own fireside
With the evil tongue and the evil name
For each is at war with mankind."

War is a consequence—a consequence of cherishing fears, hatreds, illogical and wishful thinking, and of giving truth second place. The scientific method, which has in-

fluenced modern medicine to such a degree, has contributed more towards the attainment of truth than any other *modus* since the dawn of human intelligence. We all know what it is—observation and deduction, or experiment and observation, checking and verification of findings, with belief only on evidence. How often in the ordinary course of events are we dominated by prejudices? How often are we prone to overstatement or understatement? Liddell Hart* has expressed the situation admirably as follows:

"The longer I have watched events, from a close-up view, the more I have come to the conclusion that most of our mistakes, and troubles, are not due to natural faults of judgment. But that the real cause lies in the habit—on all sides—of saying something more, than we know to be true. This almost universal practice of distorting simple matters of fact, whether by suppression or exaggeration, is inspired by concern for the interests of party, class, or profession—at the bottom this so-called loyalty being too often self-interest. We are intent on 'making a case', rather than on finding the truth. We play the part of counsel for the defence or for the prosecution. It is easier, and more popular, than the laborious effort of becoming scientific investigators."

Freedom has become an enchanted word with us. The highest attainment of freedom, however, to continue Liddell Hart's contention, is freedom from prejudice. Probably there is no greater call for such freedom than at the present time when emotions are apt to be tense. Many of us have prejudices, fortunate if they are only minor ones, which we fondly cherish. It is this unscientific way of approach, however, that gets not only nations but individuals into trouble. What better time to practice the virtues of tolerance in thought and deed than the approaching season of peace on earth and good will among men?

PURELY PERSONAL

WITH this number of *THE JOURNAL*, I retire from the editorship to confine my attention to private practice. For twenty-three years, out of over thirty spent in the practice of medicine, I have devoted part of my time to medical journalism. The first ten years of the thirty included editorship of the *Detroit Medical Journal*; then after a period of seven years' separation from the odor of printer's ink, in 1926, I

was prevailed upon to edit *THE JOURNAL* of the Michigan State Medical Society. For thirteen years I have endeavored to perform this function. It has meant the devotion of practically all the time not spent at my practice, but throughout these years the work has been unusually interesting. It has brought me in contact with a great many members of the medical profession whom it has been a pleasure to know.

During this period I have tried to maintain consistency in the editorial policy of *THE JOURNAL*, for while the general editorial policy is defined by the Council, the details must always be the work of the editor. This is as it should be. Presidents and officers are elected to serve their term of office and retire. The society's *JOURNAL* makes for continuity. It is the link that binds successive Council administrations together and presents a permanent record of their achievements.

The Council, however, has given the editor every freedom consistent with the general policy of the society, which, it is needless to say, is an incentive for any editor in turn to give of his best.

I am reminded of a statement by Edmund Burke, who declared (referring to a representative of the people) "that his unbiased opinion, his mature judgment, his enlightened conscience he ought not to sacrifice to any man, or to any set of men living. . . . They are a trust from providence, for the abuse of which he is deeply answerable. Your representative owes you, not his industry alone, but his judgment; and he betrays you instead of serving you, if he sacrifices it to your opinion." However, an individualist by conviction, it has been an easy matter to advocate the viewpoint of the physician in private practice as opposed to that of state or socialized or subsidized medicine. It has never been any sacrifice of judgment to the opinion of others. Many letters I have received from time to time as well as personal expressions would make any editor so favored, feel that his work was not wholly in vain.

Furthermore, an effort has been made to produce a *JOURNAL* attractive in format as well as clean in typography. The endeavor to present the best and to encourage the best in Michigan medicine has been the laudable ambition of the Council of the Society who publish *THE JOURNAL*. One

*Hart, Liddell: *The Defense of Britain*. Random House, Inc., New York. Quoted by permission of the publishers.

thing that has impressed me perhaps more than anything else is the large place THE JOURNAL has come to occupy in Michigan medicine. It has become one of the major activities of the Council. As a medium for publication for contributed articles, it has resulted in an incentive to write, and the urge to write has meant greater thoroughness in the study of medicine and its allied specialties; and here we have postgraduate medicine at its best. Had circumstances permitted a larger JOURNAL, many other excellent papers would have appeared, which on account of their length had to be excluded.

Twenty-three years is a long time to devote to editing manuscripts, writing editorials, reading proofs, making decisions, answering correspondence, trying to keep abreast of the entire field of medicine or at least a respectable distance behind, and numerous other details that demand an editor's attention.

I wish to take this opportunity to thank past presidents as well as the present president of the society, Dr. Burton R. Corbus, and counsellors, Dr. L. Fernald Foster, Secretary, and Bill Burns, Executive Secretary, and my many friends in the profession for repeated kindnesses that I can never adequately repay.

With sincere good wishes for a Merry Christmas and a Happy and Prosperous New Year.

—J. H. DEMPSTER

CHRISTMAS BELLS

Oh, the bells—the Christmas bells—
Ringing clear across the dells,
Ringing, singing, winging joy,
Children dancing, laughing, coy;
Heaven's near, with radiant bliss,
Ecstasy and blessedness.

There's no chimes in war or hell,
There's no bliss where soldiers fell;
There's no smile in Devil's Den,
There's no love in hate, ye ken;
But the bells—the Christmas bells—
Happiness and joy foretells.

Oh, the bells—the Christmas bells—
Waft the sound o'er snowcapped fells;
Sing with glee, 'tween skies above,
Songs of cheer and joy and love;
Ring the bells o'er all the earth,
Ring the new day and the birth;
Christ is here—let hatred cease,
And let us have Eternal peace!

WEELUM.

DR. ROY HERBERT HOLMES

Dr. Roy Herbert Holmes of Muskegon, Michigan, who was appointed chairman of the Publications Committee of the Michigan State Medical Society at the annual meeting in Grand Rapids last September,



DR. ROY HERBERT HOLMES

has also been made acting editor of THE JOURNAL until a permanent appointment is made at the annual meeting of the Council which takes place in January. Dr. Holmes is well qualified for the position. A "Who's Who" description would run something like this: Born in 1896, he attended public school and high school in Grand Rapids. His premedical work was taken at Kalamazoo College and the University of Michigan. He attended the University of Michigan Medical School, where he was graduated in 1922. Dr. Holmes' internship was spent at the Massachusetts Memorial Hospital, Boston. Following his internship, he spent twelve years in the general practice of medicine, when he decided to limit his practice to dermatology. His special training was obtained at the Skin and Cancer Hospital, New York. At the present time, he is consultant in dermatology and syphilology at the Hackley Hospital and Mercy Hospital and consultant in medicine at both hospitals, where he is also instructor in syphilology and dermatology in the Nurses' Training Schools. He was made a Fellow of the American College of

JOUR. M.S.M.S.

Physicians in 1936. For the past six years, Dr. Holmes has been editor of the *Muskegon County Medical Bulletin*, where he has shown ability of high order, particularly in his breezy comments on medical affairs as they affect the Muskegon County Medical Society. There is one omission in this Who's Who sketch which, at the time of going to press, we are unable to fill, namely, Dr. Holmes is unmarried. As chairman of the Publications Committee, he has made a number of valuable suggestions for future journals.

DR. R. J. HUBBELL

Dr. R. J. Hubbell of Kalamazoo has been appointed councillor for the fourth district to fill out the unexpired term of Dr.



DR. R. J. HUBBELL

F. T. Andrews, who has been appointed Director of the Bay County Health Department. Dr. Hubbell is a graduate of Northwestern University where he received his B.S. in 1918 and M.D. in 1923. Following his graduation, he spent his internship at the Wesley Memorial Hospital, Chicago, from 1922 to 1924. From 1924 to 1929, he was engaged in general practice in Kalamazoo. The next two years he spent in graduate work in neurology with Dr. B. A. Thomas of Philadelphia. Since his return to Kalamazoo, his practice has been limited to urology. Dr. Hubbell was secretary of the Kalamazoo Academy of Medicine from 1931 to 1933 and president of the Academy of Medicine in 1938.

DR. VERNOR M. MOORE

Dr. Vernor M. Moore has been appointed chairman of the Finance Committee of the Council, a position which he assumes after four years' experience as a member of the



DR. VERNOR M. MOORE

committee. Dr. Moore was appointed a member of the Council in 1935 by President Richard R. Smith to succeed Dr. B. R. Corbus. The position of "guardian" of the treasury is an important one and it will be filled by Dr. Moore as successfully as it has been by his predecessor, Dr. H. R. Carstens, now president of the Council.

AS YOUTH SEES IT

Drums, bugles, and tramping feet sound in the streets.

Young men tear themselves from their mothers' arms.

Weirdly painted ships creep from the shores of their mother countries, into the still dark night.

Sad-eyed, silent women wind and knit, knit and wind, wind and knit.

Whispered orders sent down through the lines at the zero hour.

Gaunt men creep from vermin-infested trenches into a cold dawn and stumble over the bodies of the dead, as they steal across reeking ground.

Why?

To kill their image—youth.

Shells explode in the dim break of day.

Dying boys breathe prayers through parched, pain-twisted lips.

Terrible, empty silence reigns over ten-thousand rows of stark white crosses.

Youth is dead.

Must it die again tomorrow?

—ELEANORE PINO.

Eleanore Pino is the daughter of Dr. Ralph Pino, president of the Wayne County Medical Society, and Mrs. Pino. We congratulate the young woman on the excellence of the poem.

THE PHYSICIAN'S WIFE AND THE COMMUNITY

HARRISON S. COLLISI, M.D., F.A.C.S.†
GRAND RAPIDS, MICHIGAN

How a physician's wife fulfills her rôle as a valuable aid to community welfare is a subject that may be of some interest to the public, especially at this time when the Michigan State Medical Society and the Woman's Auxiliary to this organization are in annual session in Grand Rapids.

Of recent years much has been written about doctors of medicine and their profession. History tells us that famous "Knights in the Profession" guided groping mankind out of the terrors of darkness and superstition; interesting biographers relate how the "Valiant Host in White" shook dice with destiny to fight cholera, yellow fever, malaria and typhoid; revelations of the confidential relationship of physician and patient form the structures of more than one alluring tale that has brought the real, human side of medicine to the public. But little has been written or told of the physician's wife and the part she plays in this great incomprehensible miracle of human existence to which her husband contributes so generously and so unselfishly of his knowledge, skill and judgment.

No group of women are more altruistic, unselfish and as understanding of the physical and social afflictions of humanity as are physician's wives. They see and hear more of the all-too-prevalent distressing problems which their husbands meet in the practice of their profession. Physicians' wives are true humanitarians, who have a vital interest in their work, which they find provides a channel of expression for some of their most elemental and deeply-rooted impulses.

Physicians' wives, like all other wives who are cognizant of the great importance of the need for harmony in the home, regard their husbands as essential persons upon whom patients and community depend for the full value of their services. As the mental attitude and spirit of a physician determine his success, a physician's wife realizes that his home life should be a happy one and endeavors to maintain this happiness and thereby assist her husband and the community. That physicians' wives keep their domestic responsibilities well in hand is shown by the 1930 census report which reveals that less than eight-tenths of one per cent of physicians' marriages fail. This places the profession second only to the clergy in matrimonial stability.

The physician's wife plays a definite part in the modern social-thinking community. That she may become of a constructive, wholesome, practical value to the community, she recognizes she must progress far beyond the barter of primitive economics and

mere social contacts. Because she is really second to the profession itself and lives in an atmosphere of science, a physician's wife can do much to dispel the antiquated ideas of her own sex regarding superstition, fear, ignorance and false modesty—civilization's most treacherous enemies. It is a well-known fact that many women consult physicians about themselves because their fears were set at ease by the assurance of the physician's wife that they might be unnecessarily alarmed. The attitude of the physician's wife toward her sister of the laity is so well expressed in the quotation, "Scientific knowledge enters into the art of living and loving. Life is sad without love."

The idea of constructing a Woman's Auxiliary to the medical profession had its inception in the brain of a Texas woman in 1917. Mindful of the fact that there was a need for greater friendship and co-operation among physicians' wives, that a physician's home life should be made a happy one, and that there was a definite opportunity to be of service to the community, she invited a group of physicians' wives to her home and suggested that they form an organization. This met with a ready response and the wives of the physicians of Dallas, Texas, formed the first Woman's Auxiliary to a county medical society. News spread and soon other county societies were organized, ultimately resulting a year later in the organization of the Woman's Auxiliary to the Texas State Medical Association. This venture proved so successful that four years later, in 1922, a Woman's Auxiliary to the American Medical Association was organized, which today includes 39 states and has a total membership of more than 21,000.

In Michigan, the Woman's Auxiliary to the State Medical Society, now boasting a membership of over 1,000 women, was organized in 1927 at Mackinac Island. Like all other state auxiliaries, its fundamental objectives extend into three fields—first, to establish friendships and comradeships among physicians' wives; second, to gain a more comprehensive, intelligent and sympathetic understanding of the medical profession; and third, to participate in the altruistic work that constitutes so large a portion of the physician's obligation to society and to the community.

The contribution of physicians' wives to community welfare in which the Michigan Auxiliary is particularly interested, is made by means of organized efforts to promote *health education*, to establish medical *public relations*, to support good *legislation*, and to engage in worthwhile *philanthropic endeavors*.

Health Education in the community is carried out by sponsoring lectures by competent medical

†Dr. Collisi is "advisor" on the Advisory Committee to the Woman's Auxiliary of the Michigan State Medical Society.

authorities on such subjects as cancer control, maternal welfare and child hygiene, tuberculosis, and preventive medicine. Essay contests in the schools are encouraged, periodic health examinations of children and adults are advocated and radio talks are given on health topics of importance to the public. Posters depicting the rewards of immunization and accident prevention, as well as other stories in scientific medicine, are exhibited in advantageous places, where they will appeal to interested people. Most important of these activities is perhaps the solicitation of subscriptions and the distribution of *Hygeia*, the periodical health magazine of the American Medical Association—the only one of its kind in America. By these means authentic reliable and vitally essential health information is brought to every man, woman and child.

Public relations in the community are established by making contacts with civic-minded groups, who desire enlightenment and the truth on medical subjects—women's clubs, parent-teachers' organizations, literary societies, Y.W.C.A.s, the League of Women Voters, the Woman's Auxiliary to the American Legion, church and other groups. Today, organized medicine realizes more than ever the great need for good public relations, and that foremost in this relationship are the physicians' wives, who share success or failure with their husbands. Physicians' wives have the enthusiasm, energy, optimism and appeal which is so essential for good public relations.

Legislation involving medical questions often concerns the laity, especially when it would deprive them of the free choice of physician, or might disturb the patient-physician relationship. If legislation is proposed that tends to lower the high standards of medical practice by permitting untrained individuals to venture into fields of scientific medicine in which they are not qualified to diagnose and treat the ill, it then becomes the duty of the wives of doctors of medicine to call attention to and enlist the services of the thinking people in the community to defeat such legislation. On the other hand, good legislation, such as that making it possible to have non-profit group hospitalization and voluntary group medical care plans in Michigan providing for "adequate medical care for persons of limited income," is whole-heartedly supported by the Woman's Auxiliary to the Michigan State Medical Society.

Philanthropic endeavors that help community welfare have always been prominent in the fields of activity of all civic-minded women. Physicians' wives, particularly, engage in them because they deal with human problems which are close to their husbands' profession—solicitation of funds for benevolent societies, community chest campaigns, hospitals, and many other philanthropic societies whose functions consist of relieving unfortunate people.

The physicians' wives have accepted their responsibilities with noble idealism and a firm de-

termination to render a public service of benefit to mankind that will uphold the honor and dignity of traditional medicine. Their maternal instincts have taught them that the suffering and anxiety of afflicted mankind knows no class distinctions—prince and pauper alike need sympathy and succor, when afflicted.

Naturally, physicians' wives have learned that "women are still young at fifty"; that woman's span of life has almost doubled that of her sister of ancient Greece, whose life expectancy was 29.4 years as compared to that of hers today, which is 62.8; and that cancer, tuberculosis, and other diseases, which formerly instilled fear into the human race, not only are preventable but definitely curable, if discovered early. Because of their close association with the medical profession and their knowledge of preventative medicine, they constantly strive to keep physically fit.

Physicians' wives accept woman's challenge to civilization that she be given the three most priceless things in life—Health, Happiness and Contentment—with the hope and enthusiasm that they shall come through their efforts to teach the gospel of their husbands' profession.

LUETIC POLYNEURITIS

(Continued from page 1056)

sent to a course of arsphenamin treatments failed. I had to resume the bismuth, mercury, potassium iodide, and thiamin therapy as outlined previously. Again steady improvement followed. She kept up her treatments till the beginning of April, 1939, when she left Detroit for Ohio.

On July 5, she wrote me advising me that she had made no arrangements for any treatments over there, that she is still taking the potassium iodide drops and Cal C Tose, that she gained about 10 pounds since she left Detroit, that the tenderness in her right hip is leaving her gradually, that her right leg still seems to be slightly shorter than the left one, and that she still feels some discomfort whenever she has to sit on anything hard.

Conclusions

1. The factors responsible for the neuritis were (a) faulty posture giving rise to pressure on her right hip, and (b) hypothyroidism resulting from either an unbalanced diet or from a faulty absorption of thiamin due to pathologic changes in her liver and gastrointestinal tract caused by her latent lues.

2. Thiamin is indicated in the treatment of neuritis due to hypothyroidism.

3. Acetylcholine is a new item to our armamentarium and caution should be used in its administration in cases of neuritis. The doses must be small and one should never mix it with the thiamin, but administer it separately.

4. Physiotherapy is still a useful adjunct in the treatment of neuritis.

5. In every case of neuritis, one should investigate the diet and the habits of the patient. A good family and personal history of the patient should be obtained and the patient's statements be verified by having all the necessary blood and urine tests; otherwise, a case of diabetes or lues may be overlooked.

6. Trauma aggravates neuritis.

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EVERY month during 1939 the following advertisers carried their friendly message to the medical profession of Michigan through the pages of **THE JOURNAL**:

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President's Page

HOLIDAY GREETINGS

To every member of the Michigan State Medical Society, I wish a Merry Christmas and a Happy and Successful New Year.

In the midst of war alarms and domestic concerns, we turn aside for the moment to the consideration of age old verities wherein we may hope to find that spirit of Peace and Good-will so lacking in a disturbed world.

To one beloved member I would extend a very special Christmas greeting, and wish for him a continuation of health and happiness—to Doctor James H. Dempster, retiring editor of *THE JOURNAL*. In the thirteen years in which he has been editor, he has earned the gratitude of our entire membership for his earnest application to the production of a high grade *JOURNAL*. Always he has stood for the finer things in medicine and this has been reflected and carried to us in the editorial pages. He has endeared himself by his gracious and considerate manner. There is not a member of the Society but will note his resignation with real regret.

Yours, most sincerely,

Burton D. Corbus

President, Michigan State Medical Society

Department of Economics

L. FERNALD FOSTER, M.D., Secretary

OBJECTIVES AND ACTIVITIES OF M.S.M.S.

Professional and Educational:

"It is my opinion that each year our Society means more to each and every one of us. In my opinion, no M.D. can really afford to withhold membership. It is my wish that the Michigan State Medical Society make great progress and that I may be privileged to do my small part toward that end."—W. B. FILLINGER, M.D., Ovid, Mich.

The Michigan State Medical Society and its component county societies bring you these valuable benefits of membership:

1. Assurance of a high ethical standing for you in the community, the state and the nation, before the public, the law, and the profession.

2. Postgraduate courses and lectures to keep you in touch with medical progress and to improve professional ability.

3. Your common interests safeguarded through the vigilant work of democratically selected officers who are (a) men of your own kind; (b) who know your problems and those of your patients; (c) who serve generously without compensation; (d) who need and request your coöperation and advice.

4. Benefits accruing from the action of numerous committees constantly working to advance your interests as a physician in your community; machinery solving problems of preventive and curative medicine which could not be worked out by you as an individual, even with a great sacrifice of time and effort.

5. Maintenance and constant improvement of standards of medical practice for the protection of patients.

6. A monthly Journal of high quality with the latest scientific literature, and general information important to you.

You owe much of your medical security today to the past activities of organized medicine. You have an obligation to those who follow. Will you help carry on?

Your destiny is intimately related to the success of your county, state and national medical organizations.

OUR JOURNAL ADVERTISERS

The publication of THE JOURNAL entails considerable expense—more, in fact, than is realized from our membership's assessment. This expense is necessary and justified if the standard of THE JOURNAL of the Michigan State Medical Society is to be maintained.

Considerable financial contribution to the publication costs is made by our advertisers. The presentation of their wares, in THE JOURNAL, implies our endorsement of their products and is a testimonial to their reliability and character. Only products accepted and approved by the American Medical Association are publicized in THE JOURNAL.

Since our advertisers become partners of the members of the Michigan State Medical Society in THE JOURNAL publication, it behooves each physician to use these approved products and to make known to the advertiser the fact that his contribution is really appreciated.

Your especial attention is drawn to the list of our regular advertisers—those firms who, each month throughout the year, purchase space in the JOURNAL. Your manifested appreciation will encourage more reliable firms to publicize their products in your publication and will enable your Editorial Board to continue a JOURNAL of which we can all be proud.

The advertisers' financial contribution prevents an otherwise necessary increase in your State Society dues.

AN IMMUNIZATION PROGRAM

Some months ago, every physician in Michigan received a pamphlet setting forth the latest approved methods and technic of immunization. This pamphlet represented months of study and compilation. Its contents were approved by the Michigan State Medical Society, the Michigan branch of the American Academy of Pediatrics and the Michigan State Health Department.

The subject matter of this pamphlet represents a major portion of the activities of

the new Child Welfare Committee of the Michigan State Medical Society. Adherence to the principles set down in this brochure is essential to the active practice of preventive medicine, in which every physician should participate.

Your earnest attention to, and careful study of this work is urged upon every member of the Michigan State Medical Society. It was prepared and distributed for your convenience.

THE SEASON'S GREETINGS

As we draw near to the end of another year of activity, we review with considerable gratification the accomplishments of the past twelve months. Organized medicine has kept pace with scientific advancement, and has met with serious analysis its ever-increasing social and economic problems.

As we launch upon another year's endeavors, the Greetings of Christmas and New Year are extended to one and all.

May 1940 witness even a greater service, by the medical profession, to the citizens of Michigan—a service developing better health and prosperity to all.

GLASS HOUSES

Do not criticize the work of another physician to his patients. It is by no means improbable that, within a short period of time, he will have occasion to discuss with a patient of yours work about which you may have little reason to be proud, and may seize the opportunity to even the score with you. It is also conceivable that your patient may bring suit against you while his patient is content to return to him with your criticisms. Remember, too, that such disparaging remarks may become the basis for the filing of a counter suit for slander.—*The Roentgenologist in Court*, S. W. Donaldson, M.D.

NEW EXECUTIVE SECRETARY

The Genesee County Medical Society took a very progressive step, on October 25, 1939. It created the position of Executive Secretary. Sara Burgess was selected to fill this position. The new executive office will be located in Hurley Hospital, Flint. All

correspondence for the Secretary, Treasurer, and general committees may be sent to the Executive Office.

Two county medical societies of Michigan now have executive secretaries—Genesee and Wayne.

Congratulations, Genesee County Medical Society, on this forward move. All success to your venture!

COUNTY SECRETARIES' CONFERENCE

January 21, 1940, is the date of the Annual County Secretaries' Conference. The meeting will be held as usual in Lansing, at the Olds Hotel, beginning at 10:00 a. m. and adjourning promptly at 4:30 p. m.

The morning session will be devoted to round table discussions on Relief Medicine, including the Afflicted-Crippled Child Acts, Group Medical Care (Michigan Medical Service), and similar matters of vital interest to every practitioner of medicine.

The unique feature of this year's Conference will be a joint meeting in the afternoon with all the health officers of the State, called to the Capital City by State Health Commissioner H. Allen Moyer, M.D.

Secretaries and executive secretaries of county medical societies are invited to attend, and are urged to bring their presidents or presidents-elect.

1940 CONVENTION

Detroit has been chosen by The Council as the place for the 1940 Annual Meeting of the Michigan State Medical Society. The dates: September 24, 25, 26, 27, 1940. The headquarters hotel will be the Book-Cadillac.

CHRISTMAS SEALS



Help to Protect
Your Home from
Tuberculosis

MICHIGAN MEDICAL SERVICE—A DIGEST

PART II

(Continuing from Page 963 of the November issue of THE JOURNAL, this Article outlines the essential provisions of the Michigan Medical Service plan)

Arrangement Between Physicians and Michigan Medical Service

Perhaps of most importance to physicians is the matter of the arrangement between the doctors of medicine and Michigan Medical Service.

The first fundamental principle adhered to in the development of the Michigan Medical Service plan was that the present relations between patients and physicians should not be changed except in the detail of making payments to physicians. The present essential principle of free choice of physician has been definitely maintained in the enabling act and in the provisions for the Michigan Medical Service plan. All doctors of medicine licensed to practice in the State of Michigan may register with Michigan Medical Service.

In other respects, the relations between the patient and physician will be the same as in private practice. In private practice physicians have an ethical and legal responsibility to their patients and this responsibility is not changed by Michigan Medical Service. Michigan Medical Service will not undertake to supervise the medical practices of physicians as this is the duty of the medical profession. Local Medical Advisory Committees of physicians will be formed by the medical profession in the community to supervise the relations between local physicians and Michigan Medical Service. District Medical Advisory Boards created by the medical profession will arbitrate questions dealing with professional relations.

Participation of Physicians

All doctors of medicine licensed and registered under the medical practice act of Michigan are eligible to provide services for the subscribers to the Michigan Medical

Service plan. A Registration Application, which will be sent to all physicians, will indicate that the physician is willing to cooperate with Michigan Medical Service and to provide services for subscribers according to the terms and conditions of the Michigan Medical Service plan. The legal responsibility of physicians who register with Michigan Medical Service toward subscriber-patients will be the same as the present legal responsibility between physicians and patients.

No registration fee will be charged members of the Michigan State Medical Society, inasmuch as the Society has already met organization expenses and will contribute working capital. Non-member physicians will be expected to pay a registration fee equal to the per capita contribution already made on behalf of the physicians from the funds of the Michigan State Medical Society.

Fees

One of the most difficult problems in a medical service plan is the question of medical fees. The Council of the Michigan State Medical Society has given full consideration to this intricate problem.

A short listing of fees has been prepared to indicate the level of payments contemplated by Michigan Medical Service. Such a schedule of fees will be used as a guide by the Medical Advisory Committees in approving payments for services rendered. These fees represent the amounts now charged by physicians for patients in the limited income group eligible for enrollment. Qualified specialists, when called in consultation, will be paid a consultation fee.

The subscription rates on which the Michigan Medical Service plan is based have been determined in accordance with two major factors: (1) Equitable fees for services

*Part I of this Digest appeared in the November issue of THE JOURNAL, page 960.

to be rendered; (2) Ability to pay of the persons to be served. To be fair to both the public and the profession, equal weight was given to each factor. Every demand that subscription rates be lowered must face the necessity to pay lower fees; and every demand that higher fees be paid must face the necessity to charge higher subscription rates.

Services and Payments

On the commencement of services for a subscriber, the physician will be asked to send a notice to Michigan Medical Service in order that records pertaining to the subscriber may be checked. At the end of each month in which services have been rendered, the physician will send a report itemizing the services rendered. The report form required will be kept as short and simple as possible.

All reports of services must be received within ten days after the end of the month and failure to furnish a report will invalidate the claim for payment unless the delay could not have reasonably been avoided.

After deducting funds for administrative expenses and reserves, the available funds will be distributed pro rata to the physicians who have submitted reports of service, using the established fee schedule as a basis.

State-Wide Plan

Early in the development of the medical service plan, it was proposed that county medical societies operate plans on a county-wide basis and that the State Medical Society simply develop a central organization to assist and advise local medical societies. However, the Insurance Department of the State of Michigan recommended the establishment of a state-wide plan with one administrative organization, because of the desirability of uniform subscription rates throughout the state and the necessity for centralizing reserves.

In view of the position taken by the Insurance Department and to avoid duplicating administrative organizations and expenses, The Council proceeded with the development of a proposed state-wide organization which received full approval of the House of Delegates at the meeting in Grand Rapids on September 18, 1939.

Control Measures

Physicians have been keenly interested in the arrangements for supervising the rendering of services to subscribers, and the procedures to be used in making payments to physicians who have rendered such services. It is contemplated that, in each Councilor District, a Medical Advisory Board will be established to supervise, as may be necessary, the approval of bills for services rendered. Local Medical Advisory Committees may also be created to coöperate in this function.

A Medical Profession Plan

Physicians of Michigan should recognize that Michigan Medical Service is their own plan and that its success or failure will be largely dependent on their own actions. The provisions for the Michigan Medical Service plan have received the considered judgment of the Delegates and Councilors of the State Medical Society and embody the fundamental principles recognized as essential for a sound medical service plan. The administration of the plan will be in the hands of a Board of Directors, the majority of whom are practicing doctors of medicine thoroughly conversant with the problems of medicine.

The physicians of Michigan, by their co-operation and sympathetic participation during the initial period of placing the medical service plan into operation, will contribute immeasurably to the success of the plan. The Michigan Medical Service plan offers tremendous possibilities of serving as a real benefit both for persons in the low income group and for physicians.

The success of Michigan Medical Service will preclude the entrance of government or lay groups into the practice of medicine and will ensure the objective toward which the Michigan State Medical Society has been striving—provision of good medical care for all of our people.

Members of the Michigan State Medical Society are urged to familiarize themselves with the Michigan Medical Service plan and to coöperate with the Delegates and Councilors in their efforts to inaugurate a feasible plan of medical care for the limited income and relief groups.

Woman's Auxiliary

YULETIDE GREETING

The high season of the year is at hand when all of us have the opportunity to give greater thought to the blessings which have been bestowed upon us so generously. The holidays seem to be set aside for the purpose of appreciating more than ever our families, our relatives, our friends.

This pause, from the considerations of a troubled world, allows us a moment to say to all these friends and relatives: "May your Christmas be full of joy, and the New Year bring you Peace, Happiness and Prosperity." That is my wish for the members of the Woman's Auxiliary, and for the doctors of the Michigan State Medical Society.

Our country is free of war. With the help of the doctors and the Auxiliary, it shall be free of the taint of socialism. Our responsibility is to inform the people of the dangers of state-managed medicine, and of the benefits of voluntary group medical care, such as the Michigan State Medical Society program.

After the turn of the year, I am hoping that concentrated attention can be given to a dire need of the Woman's Auxiliary—a permanent secretary. I would like to affirm as one of my New Year's resolutions that I shall work unceasingly, with the help of other members of the Woman's Auxiliary, for the creation of this post. No successful organization carries out a long-term program without permanence in one or more of its offices, particularly in that of secretary.

Again, to the thousands of physicians' wives in Michigan, who are sincerely serving the needs of their physicians, we send sincere Christmas and New Year's greetings.

—MARY C. CHRISTIAN, *President*.

REPORT OF ANNUAL CONVENTION

The thirteenth annual meeting of the Woman's Auxiliary of the Michigan State Medical Society was held in the Pantlind Hotel, Grand Rapids, September 19 to 21.

The pre-convention meeting of the 1938-1939 Board was held Tuesday, September 19, at the Pantlind Hotel. Following the luncheon, Mrs. P. R. Urmston, president, called the meeting to order. The minutes of the previous meeting were read and approved. The chairmen of the standing committees gave informal reports and discussed the problems of their field of work.

A reception honoring Mrs. Rollo Packard of Chicago, national president, was held preceding the banquet, which more than one hundred Auxiliary members attended. Seated with Mrs. Packard at the speakers' table were: Mrs. P. R. Urmiston, president; Mrs. Harrison Collisi, State Convention chairman; Mrs. Roger Walker, vice president; Mrs. L. G. Christian, president-elect; Mrs. R. E. Scraftford, secretary-treasurer; and Mrs. Wm. Butler, co-chairman of the State Convention. Following dinner Mrs. Packard presented a definite challenge in her message, "Functions of the Auxiliary."

The annual meeting was held in the Swiss Room of the Pantlind Hotel, September 20, at 9:30 a. m. The meeting was called to order by the president, Mrs. P. R. Urmiston. The address of welcome was

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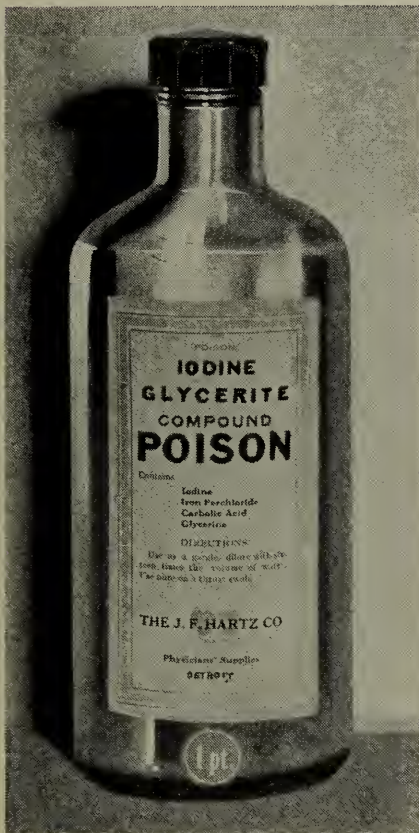
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given by Mrs. Wm. Butler, co-chairman of the hostess auxiliary and response was made by Mrs. T. F. Andrews. The minutes of the previous meeting were read and approved. The treasurer's report, showing a balance of \$796.50, was read and accepted. Mrs. H. J. Pyle, chairman of Registration and Credentials, reported thirty-four voting delegates with a total of 240 registrations. Reports from standing committee chairmen were read and placed on file. Those reporting were: Organization—Mrs. Roger Walker. Press—Mrs. Page, read by secretary. Legislation—Mrs. F. T. Andrews presented Dr. Foster, secretary of Michigan State Medical Society. Dr. Foster gave an up-to-the-minute account of the legislation affecting the medical profession. Public Relations—Mrs. Collisi. Revision—Mrs. Bond. The proposed amendments to the Constitution and By-Laws were read. It was moved by Mrs. Keagle, seconded by Mrs. Whitney, that the report be accepted. Motion carried. After much discussion all proposed amendments were approved and accepted with the exception of Article 4—Officers; Section 3, 4, 5, which was moved by Mrs. Wenger, seconded by Mrs. Pyle, to be laid on the table. Motion carried. Mrs. Robb moved, seconded by Mrs. Geib, that Article 5 be laid on the table. Motion carried. *Hygeia*—Mrs. Keagle. Program—Mrs. Jaennichin. Mrs. Urmston introduced Dr. Harvie, chairman of Advisory Board. He brought a brief message from the Medical Society and the Advisory Board. Mrs. Rollo Packard was present and spoke briefly on *Hygeia*. Mrs. Walker took the chair while Mrs. Urmston read her president's report and her report of the national convention in St. Louis. Mrs. Whitney gave the report of the Budget Committee. Mrs. Robb moved that at the next annual meeting, copies of the proposed budget for the coming year and copies of the treasurer's annual report be handed to members as they enter the meeting. Motion was seconded by Mrs. Whitney and carried. Mrs. Andrews, chairman of the Courtesy Resolutions, recommended letters be written in appreciation to the Shari Shop and to Mrs. Harrison Collisi, Convention chairman, also a letter to Mrs. John Page on her recent bereavement. The report of the Nominating Committee was given by Mrs. Sutton, chairman. The names presented were: Mrs. L. G. Christian, president; Mrs. Roger Walker, president-elect; Mrs. W. W. Bond, vice president; Mrs. W. J. Butler, treasurer. As there were no nominations from the floor these officers were unanimously elected. The reports of the county presidents were read and ordered placed on file. They were reported as follows: Bay, Mrs. Allen; Calhoun, Mrs. Wenke; Eaton, Mrs. Sassman; Ingham, Mrs. Vanderzalm; Jackson, Mrs. Alter; Genesee, Mrs. Willoughby; Kalamazoo, Mrs. Aldrich; Kent, Mrs. Butler; Newaygo, Mrs. Stryker; Oakland, Mrs. Sutton; Saginaw, Mrs. MacKinnon; Van Buren, Mrs. Kingard.

Mrs. Urmston introduced the newly elected officers for the year 1939-40. The gavel and president's pin were presented to Mrs. L. G. Christian, who, in turn, presented Mrs. Urmston her past president's pin. Mrs. Christian then took the chair. Wednesday noon, a luncheon at the Kent Country Club was attended by a record crowd. The long tables centered with artistically arranged mounds of fall fruits and vegetables were outstanding. Guests at the speakers' table were Mrs. Rollo Packard, Dr. Luce of Detroit, Dr. Harvie of Saginaw, Dr. Urmston of Bay City, Dr. Corbus and Dr. Torgenson of Grand Rapids, Dr. Foster and Wm. Burns. Following the luncheon, Mr. Lee A. White, of the *Detroit News*, gave a very interesting talk, "What Can We Believe."

The post-board meeting, following the luncheon, was called to order by the president, Mrs. L. G. Christian. She called on Mrs. Wm. Butler, who distributed blanks for the budget committee and gave instructions for their use during the year. The committee chairmen appointments were announced by Mrs. Christian. The meeting was adjourned at 4:30 o'clock. A Furniture Museum tour followed this meeting.

Wednesday evening, from 6:00 to 8:00 o'clock, an informal hors d'oeuvres party was enjoyed by auxiliary members and guests in the Club Lounge. Following the evening lecture by Dr. Rock Sleyster, dancing was enjoyed in the Grill Supper Club.

BRIEFS

Eaton County.—The first meeting of the year for the Woman's Auxiliary to the Eaton County Medical Society was held Thursday, October 14, 1939. Following the dinner, at Fisher's Party Rooms, the meeting was called to order by the president, Mrs. F. W. Sassaman.

The following committees were appointed by the chair: Social—Mrs. Newark, Charlotte; Membership—Mrs. Huber and Mrs. Moyer, Charlotte; Press—Mrs. Brown, Charlotte; Program—Mrs. Stucky and Mrs. Anderson, Charlotte; Public Relations—Mrs. Wilensky, Eaton Rapids; *Hygeia*—Mrs. Paine, Grand Ledge; Necrology—Mrs. Burdick, Grand Ledge; Flower—Mrs. Rickerd, Charlotte, and Mrs. VanArk, Eaton Rapids.

Jackson County.—Meeting of October 17. Speakers: Dr. J. H. Ahronheim and Mr. Merrill Hewitt.

Kalamazoo County.—Meeting of October 12. Election of officers: President, Mrs. Ralph G. Cook; President-elect, Mrs. Kenneth L. Crawford; Vice-President, Mrs. Sherman Gregg; Secretary, Mrs. Keith L. Bennett; Treasurer, Mrs. Robert J. Armstrong.

Kent County.—Meeting of October 11. Speakers: Mrs. O. H. Gillett; Dr. Luther Carpenter, and Rabbi Jerome Folkmann. Mrs. Alexander M. Campbell was elected president of the Kent County Woman's Auxiliary.

Monroe County.—Meeting of October 12. Appointment of committees was made, and program for the year was discussed.

Saginaw County.—Meeting of October 24. Luncheon in honor of the officers of the State Woman's Auxiliary. Mrs. Frederick J. Pietz was general chairman. Eighty-five present.

DIRECTORS OF MICHIGAN MEDICAL SERVICE MEET

The first meeting of the Directors of Michigan Medical Service was held on November 30 in Lansing. Drs. H. H. Cummings, O. D. Stryker, and R. H. Holmes, new members of the Executive Committee of The Council, were elected to the Board of Directors. Mr. Wm. J. Norton, chairman of the Children's Fund of Michigan, was also elected as a representative of the public. Final arrangements for the early inauguration of Michigan Medical Service will be conducted by the Board of Directors.

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LANSING, MICHIGAN

COUNTY HEALTH DEPARTMENT ORGANIZATION

Cass County Board of Supervisors voted, on October 24, to establish a full time county health department, thus becoming the 61st Michigan county to provide this service. It is expected that the new department will be organized about January 1, 1940.

Washtenaw County Board of Supervisors, which voted, on October 20, to establish a county health department, reversed their decision a week later. The vote against organization at this time was occasioned by lack of funds.

DR. E. L. McQUADE JOINS STATE DEPARTMENT STAFF

Dr. Edwin L. McQuade, former director of rural health in the Virginia State Health Department, has joined the staff of the Department's Bureau of Epidemiology. He will specialize in typhoid control, directing the Department's program for the detection and control of typhoid carriers.

Dr. McQuade received his M.D. in 1927 and completed his doctorate in public health at Johns Hopkins University in 1931. In addition to a short period in private practice in Nova Scotia, he has served as county health officer in Virginia, instructor in epidemiology at Johns Hopkins, and associate professor of preventive medicine at the University of Virginia.

ONTONAGON-BARAGA HEALTH OFFICER APPOINTED

Dr. Rolla J. Shale of Akron, Ohio, has been appointed director of the Ontonagon-Baraga Health Department, assuming his duties November 13. His headquarters will be at Ontonagon. Dr. Shale has served as director of Weld County Health Department at Greeley, Colorado, and as school physician at Cleveland Heights, Ohio. He received his M.D. at Johns Hopkins in 1912, practiced his profession for 19 years in Cleveland Heights, and completed his training for the master's degree in public health administration at the University of Michigan in 1938.

HILLSDALE COUNTY DIRECTOR RESIGNS

Dr. E. G. McGavran has notified the State Health Commissioner of his resignation as Director of the Hillsdale County Health Department. The resignation became effective October 20. Dr. McGavran's successor has not yet been appointed.

DR. A. E. LAUTZ TO DIRECT NUTRITION DIVISION

Amalia E. Lautz, Ph.D., is the newly appointed chief of the Nutrition Division recently organized by the Michigan Department of Health. This division will function under the Bureau of Maternal and Child Health. Miss Elizabeth Whipple is also attached to the new division as nutrition consultant. Dr. Lautz comes to Michigan from Butler University, where she was assistant professor of foods and nutrition. She received her Ph.D. at Cornell University. The services of the nutrition staff will be available to health officers in the development of local nutrition programs.

ASTHMA FROM YOUR FUR COAT

The cheaper your furs, the more expensive they may be. In the pocket of many fur garments there is an expensive but invisible bill for medical services. Efforts to make cheap furs appealing or to resemble desirable types call for the use of chemicals not used on good furs. Chief among these are fur dyes. The same chemicals are used in fur dyeing that formerly were widely used for dyeing the head hair of humans. So many cases of skin disease and asthma developed among persons with dyed hair and other persons who applied the dye that medical associations long have warned the public against this type of cosmetic.

The chief offender bears the unpronounceable name of "paraphenylenediamine," known in the trade as "ursol" but sold as an ingredient in many dyes under trade names that do not disclose its presence.

Long after a fur article has been dyed and thoroughly dried, the wearer may suffer from a disturbing shortness of breath, wheezing and coughing, associated at times with swelling of the lips, cheeks, eyes and neck tissues, and with or without inflammation of the skin.

While fur workers are the chief victims of this disease, in the aggregate the total number in the general public is much larger. Far more women are afflicted than men, since they are the chief wearers of furs.

Obviously fur asthma almost entirely disappears during the summer months. Usually the victim readily may associate asthmatic attacks with furs, for the difficulty in breathing and shortness of breath appears only when the fur is worn or near at hand. Occasionally persons who do not wear furs, but are closely associated with others who do, acquire this disease. A few persons become so sensitive that the mere presence of a dyed fur in a room is sufficient to incite an attack.

Dr. Carey P. McCord, Director of the Bureau of Industrial Hygiene of the Michigan Department of Health, states, "While the chief concern of occupational hygiene is the protection of fur workers against this disease, the entire world of cheap fur wearers should be alert to the possibilities of harm. Now is the time of fur sales, renovating and repairing of furs. Should any asthma appear not accounted for by usual causes, suspicion should point to dyed furs as a possible cause."

If a dyed fur is suspected, a few hairs should be clipped from the fur and should be applied to the skin in some sensitive area by a physician carrying out what is known as a "skin patch test." If, after wearing this patch test for a few hours the skin beneath is irritated or swollen, a diagnosis is likely to be made of "fur sensitivity." The asthma, skin swelling and dermatitis are all manifestations of this sensitivity.

CHROMIUM IN DRINKING WATER

In most towns and all cities drinking water supplies are protected against a content of dangerous germs by the addition of chemicals, chiefly chlorine. This laudable and praiseworthy health protection is supervised by state, county and municipal public health agencies. On the other hand, year by year proposals are made to add other chemicals to water supplies, including, at times, drinking water systems, industrial water supplies and water systems for special purposes such as for fire protection. By no means are all of these proposals safe or commendable. A growing practice is to add small quantities of chromium in the form of chromates to water supplies for the purpose of preventing the corrosion

of pipes and metal machinery. Where introduced into drinking water supplies, the quantity added is so low as to eliminate any ready prospect of poisoning. On the other hand, for industrial purposes, the quantity of chromium may be much larger.

Lately the Federal Department of Agriculture has made a ruling that in connection with the cooling of air by water sprays, this chemical may not be present in the water if the air so cooled later is to circulate about foodstuffs. It naturally follows that if foods may acquire enough chromium to injure the consumer, the breather of the same air might be damaged. Therefore, any such use of chromium in connection with air conditioning for human comfort is open to suspicion. While the quantity proposed for drinking water supplies is minimal, it may be believed that accidental conditions may arise that would lead to poisoning from water drinking. One milligram of chromium per day taken into the human body is the maximum that may be tolerated without possible injury to some persons. Since a milligram is only one sixty-fifth of a grain, this approximates that amount that might be placed on a pin head.

Dr. Carey P. McCord, Director of the Bureau of Industrial Hygiene of the Michigan Department of Health, states, "The use of chromium in circulating industrial water supplies opens up a definite opportunity for wholesale injury if there be any possible cross connections between the plant's drinking water supply and water systems intended only for industrial uses. Wherever chromium is used in industry in water systems, careful check should be made to eliminate the possibility of accidental transference to water intended for drinking purposes."

TWO THOUSAND WAYS TO MAKE A LIVING

If you were looking for a job and would accept any type of employment where one or more persons are already at work, it might be necessary to send out 175,000 letters of application. This number of employers is regarded as the minimum for the State of Michigan as a result of an inquiry made by the Bureau of Industrial Hygiene of the State of Michigan. This number of different places of employment includes, along with factories large and small, department stores and transportation companies, barber shops, small markets, news stands, many thousands of employments in households as maids or cooks, as chauffeurs and in various forms of self employment.

The number of places of employment in the state where the workers are above 8 or 10 in number approximates 17,500. The number of plants in which more than 1,000 persons carry out their duties probably does not exceed 100.

The number of different trades or jobs plied by Michigan workers far outnumbers the total in places of factory employment. At least 2,000 distinct varieties of jobs are occupied by Michigan workers. Alphabetically these range from accordion makers to zooglers. If packing house employes may be classed as "abattoir workers" they then perhaps head the alphabetical list of types of employment in Michigan.

The commonest health exposure in Michigan industry is noise. Second on the list comes deficient illumination. While the elimination of all industrial noise is most difficult, the provision of sufficient illumination readily may be accomplished. These two items stand at the top of the list of fifty-seven practical health exposures detected in an investigation of 700 representative plants in the State of Michigan made by the Bureau of Industrial Hygiene.

◆ General News and Announcements ◆

"Committee on Industrial Health" is the new name for the Committee on Occupational Diseases and Industrial Health.

* * *

Congratulations go to the Muskegon County Medical Society, which forwarded a check to the State Society covering 1940 dues for all its members plus two new ones! Thus, this progressive County Medical Society becomes the first member of the "One Hundred Percent Club of 1940."

* * *

The Journal of the American Medical Association carried an article in its issue of October 14, 1939, by John R. Rodger, M.D., Bellaire, Michigan, entitled "An Unsuccessful Method of Birth Control."

The issue of November 4, 1939, contained an article on "A Device for Turning the Frame Patient" by Homer Stryker, M.D., of Ann Arbor.

* * *

O. D. Stryker, M.D., Fremont, Speaker of the M.S.M.S. House of Delegates, announces the appointment of the following to the Advisory Committee on Nurses Training Schools: A. L. Arnold, Jr., M.D., Owosso, Chairman; W. C. Ellet, M.D., Benton Harbor; E. A. Oakes, M.D., Manistee; F. J. O'Donnell, M.D., Alpena; P. A. Riley, M.D., Jackson; and A. E. Stickley, M.D., Coopersville.

* * *

Mr. R. L. McCabe, Detroit, recently a member of the Michigan State Board of Pharmacy, and the owner of a professional pharmacy, will conduct a course of weekly lectures with demonstrations on

sickroom and surgical supplies for the Senior students at the College of Pharmacy of Wayne University.

* * *

Dr. Burt R. Shurly of Detroit was the guest of honor at the annual meeting of the American Academy of Ophthalmology and Otolaryngology on October 8-14. The meeting was held in Chicago. Dr. Shurly was presented with the Society's medal. He has been long identified with not only medical education but education in general, inasmuch as he has been for many years a member of the Detroit Board of Education. Dr. Shurly is at the head of the Shurly Hospital, Detroit.

* * *

The Section N of the American Association for the Advancement of Sciences, which is devoted to medical sciences, will give an extensive symposium on the blood, heart and circulation. This symposium is by the most outstanding workers in hematology and physiology in the United States. The program, which will be given at Room 100, Administration Building, Columbus, Ohio, beginning December 27, is too extensive to give in detail. Further particulars may be had by addressing Dr. Malcolm H. Soule of the Medical Faculty of the University of Michigan, Ann Arbor.

* * *

"Pay-Your-Doctor Week" inaugurated last year by the California Bank in Los Angeles on a local basis struck a responsive chord in other sections of the country with the result that the week of November 26 to December 2 of this year has been

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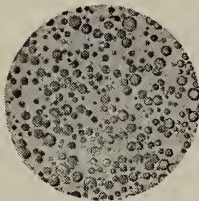
*"Treatment of Acute Anterior Urethritis with Silver Picrate," Knight and Shellen, AMERICAN JOURNAL OF SYPHILIS, GONORRHEA AND VENEREAL DISEASES, Vol. 23, No. 2, pages 201-206, March, 1939.

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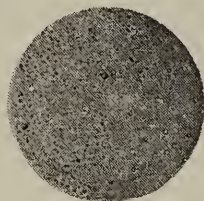
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designated as national "Pay-Your-Doctor Week." The plan is to have one bank in each city sponsor and publicize "Pay-Your-Doctor Week" through newspapers, radio, outdoor advertising, and other advertising media. The idea should be a valuable aid in stimulating many to pay their doctor who might otherwise pursue the common tendency to let the doctor wait indefinitely.

* * *

Doctor, remember your particular friends, the exhibitors at your Annual Convention, when you have need of equipment, appliances, medicinal supplies and service. Here are ten of the firms which helped make the 1939 Convention such a great success:

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Coca-Cola Company, Atlanta, Georgia
Cottrell-Clarke, Inc., Detroit
R. B. Davis Company, Hoboken, New Jersey
Dazor Manufacturing Company, St. Louis, Missouri
Detroit Creamery Company, Detroit
Detroit First Aid Company, Detroit

* * *

Wilfrid Haughey, M.D., Battle Creek, represented the Michigan State Medical Society on the Panel Discussion of "An Over-View of Our Problems and Program of the Medical Treatment of Crippled Children." The foregoing subject was presented by Mr. Hugh E. Vande Walker, Chairman of the Michigan Crippled Children Commission, at the annual meeting of the Michigan Society for Crippled Children held in Battle Creek on November 17 and 18, and a panel discussion was held with the following participating: W. S. Ramsey, M.D., represented the Crippled Children Commission; Robert Greve represented the Hospital Association; C. W. Brainard, M.D., represented the Orthopedic Surgeons; and Miss Enid Bailey represented the convalescent home.

* * *

The House of Delegates, on September 18, 1939, elected the following physicians to Emeritus Membership in the Michigan State Medical Society: James B. Bradley, M.D., Eaton Rapids; Don M. Campbell, M.D., Detroit; George L. G. Cramer, M.D., Owosso; Wm. M. Donald, M.D., Detroit; A. G. Holbrook, M.D., Coldwater; John H. Kellogg, M.D., Battle Creek; Charles C. Landon, M.D., Battle Creek; Stanley G. Miner, M.D., Detroit; Wm. H. Riley, M.D., Battle Creek; and Rollin H. Stevens, M.D., Detroit.

The House of Delegates also elected the following to Retired Membership in the M.S.M.S.: Milan Coburn, M.D., Coopersville; Henry G. Glover, M.D., and Walter E. Spicer, M.D., of Jackson. George C. Hafford, M.D., of Albion, an Emeritus Member of the Michigan State Medical Society, was nominated for Affiliate Fellowship in the American Medical Association. Congratulations!

* * *

At the annual meeting of the American College of Surgeons the following Michigan hospitals in the Detroit area were placed on the approved list: Alexander Blain, Charles Goodwin Jennings, Chenik, Children's Hospital, Delray General, Detroit Tuberculosis Sanitarium, East Side General, Edyth K. Thomas, Evangelical Deaconess, Florence Crittenton, Grace, Harper, Henry Ford, Herman Kiefer, Lincoln, Michigan Mutual, Mount Carmel Mercy, Parkside, Providence, Receiving, with Redford Branch, St. Josephs, St. Marys, Shurly, Trinity, United States Marine, Women's, Eloise, Cottage Hospital at Grosse Pointe, St. Francis, Highland Park General, William H. Maybury Sanatorium, Sidney A. Sumby at River Rouge, Sunnybrook,

Royal Oak and Wyandotte General. Four Michigan hospitals were included in the College of Surgeons list of 307 approved general hospitals which are conducting approved cancer clinics. They are the Battle Creek Sanitarium, Mercy Hospital at Bay City, Grace Hospital, Detroit, and Hurley Hospital, Flint.

* * *

The American College of Surgeons at the annual meeting in Philadelphia, October 16 to 19, admitted a number of new applicants to fellowship. From Michigan are the following: Leon C. Bosch, Grand Rapids; Harvey F. Brown, Detroit; Chauncey G. Burke, Pontiac; Thomas T. Callaghan, Detroit; Meyer O. Cantor, Detroit; Clifford P. Clark, Flint; F. Bruce Fralick, Ann Arbor; Charles H. Frantz, Grand Rapids; George Hammond, Ann Arbor; E. Howard Hanna, Detroit; Edwin L. Hansen, Battle Creek; Ernest C. Hansen, Manistee; Herbert W. Harris, Ann Arbor; I. J. Hauser, Detroit; J. A. Kurcz, Detroit; C. R. Lam, Detroit; B. H. Larsson, Detroit; E. C. Long, Monroe; O. W. Pickard, Detroit; W. J. Smith, Cadillac; B. F. Sowers, Benton Harbor; Wallace H. Steffensen, Grand Rapids; Cullen E. Sugg, Grand Rapids; F. W. Tamblyn, Lansing; Charles F. Thomas, Port Huron; and Vincent J. Turcotte, Detroit.

For the best surgical case history, Dr. Wilbur McLean of Detroit was awarded a life membership in the College equivalent to \$500 in remitted dues. Dr. Robert J. Williams, of Monroe, received honorable mention for the excellence of his case histories.

* * *

L. Fernald Foster, M.D., Bay City, addressed the Sebawaing Rotary Club on August 1, using as his subject "Medical Service Plans."

"Federalized Medicine" was Doctor Foster's subject for his address before the Jonesville Lions Club on September 5th.

Drs. Henry A. Luce, Henry R. Carstens, A. S. Brunk, and Mr. Wm. J. Burns and Mr. John D. Laux presented the Michigan Medical Service plan before the annual convention of the Michigan Conference of Social Work in Detroit on October 5th.

Wm. J. Burns discussed "Federalized Medicine" at the meeting of the Lions' Club of Lansing on October 10.

L. Fernald Foster, M.D., spoke to the Valparaiso University Guild of Saginaw on October 17, using "Michigan Medical Service" as his subject.

Roy H. Holmes, M.D., Muskegon, addressed the Lansing Service Club on the subject of "Syphilis" on October 23.

Wm. J. Burns addressed the Grand Rapids Breakfast Club on November 8, discussing "Michigan Medical Service."

L. Fernald Foster, M.D., presented the plan of "Michigan Medical Service" at the 1939 Annual Conference of Secretaries of State Medical Societies held at the AMA Headquarters in Chicago on November 17 and 18.

* * *

The regular autumn meeting of the Michigan Pathological Society was held on October 14, 1939, in Saginaw, Michigan, at the General Hospital and at the residence of Dr. Oliver W. Lohr. General exhibits featured the afternoon meeting followed by dinner at the Hospital and scientific and business meeting in the evening at the home of Dr. Lohr. Thirty were in attendance. Dr. O. W. Lohr, president, presided. The subject of the scientific program was "Bone Pathology with Special Emphasis on Tumors." The following cases were presented: "Classification of Bone Tumors" by Dr. Frank

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Hartman; "Ewing Tumor," "Myeloma of Jaw Bone," "Osteogenesis Imperfecta" by Dr. Kerr; "Lymphosarcoma" by Dr. M. R. Oldt; "Osteochondromatosis" by Dr. J. H. Ahronheim; "Squamous Cell Carcinoma Primary in Middle Ear with Metastasis to Mastoid," "Giant Cell Tumor of Mandible," "Fibrosarcoma of Femur—Possible Primary in Soft Tissues of Forearm" by Dr. O. A. Brines; "Ossifying Fibroma of Jaw" by Dr. Ruth Wanstrom; "Dural Ossification and Osteoma" by Dr. G. Steiner; "Osteogenic Sarcoma of Femur with Autopsy Report" by Dr. C. H. Binford; "Bone Cyst of Humerus," "Solid Type Osteitis Fibrosa Cystica of Foot" by Dr. C. I. Owen; "Bone Sarcoma Following Injury," "Metastatic Neurocytoma of Eye to Bone," "Thyroid Tumor" (Bone Sarcoma?) by Dr. G. L. Bond.

* * *

New Officers of County Medical Societies

Genesee County: President, George R. Goering, M.D.; President-Elect, Clifford W. Colwell, M.D.; Secretary, John S. Wyman, M.D.; Treasurer, Vaughn Morrissey, M.D., Medico-legal Officer, Herbert E. Randall, M.D.; Delegates to M.S.M.S., Frank E. Reeder, M.D., George J. Curry, M.D., and Donald R. Brasie, M.D., all of Flint.

Huron-Sanilac County: President, J. B. Henderson, M.D., Pigeon; Vice President, H. H. Learmont, M.D., Crosswell; and Secretary-Treasurer, E. W. Blanchard, M.D., Deckerville.

Lenawee County: President, P. B. Hardy, M.D., Tecumseh; Vice President, B. Patmos, M.D., Adrian; Secretary-Treasurer, E. T. Morden, M.D., Adrian; Delegate, A. W. Chase, M.D., Adrian; Alternate Delegate, B. Patmos, M.D., Adrian.

Monroe County: President, W. W. Bond, M.D., Monroe; Vice President, Edgar C. Long, M.D., Monroe; Secretary-Treasurer, Florence Ames, M.D., Monroe; Directors, V. L. Barker, M.D., Monroe, and R. T. Ewing, M.D., Monroe; Censor, J. J. Siffer, M.D., Monroe; Delegate, D.C. Denman, M.D., Monroe; Alternate Delegate, J. H. McMillin, M.D., Monroe.

* * *

County Society Meetings

Berrien County: October 18—Dowagiac. Speaker: R. L. Sensenich, M.D., South Bend, Ind. November 9—St. Joseph. Speaker: Geo. S. Livingston, M.D., Chicago.

Calhoun County: Battle Creek. November 7. Speaker: Prof. Polya of Budapest, Hungary.

Gratiot-Isabella-Claire: November 16—Alma. Speaker: Alexander M. Campbell, M.D., Grand Rapids. December 21—Alma. Annual Christmas Party, joint meeting with Dental Society. Speaker: Wm. J. Burns.

Ingham County: October 17—Lansing. Speaker: Carl V. Weller, M.D., Ann Arbor.

Jackson County: October 17—Jackson. Speaker: Harold Henderson, M.D., Detroit.

Kalamazoo County: October 17—Kalamazoo. Speaker: F. Bruce Fralick, M.D., Ann Arbor.

Lenawee County: September 26—Adrian. Speaker: Maurice Schnitker, M.D., Toledo, O. October 17—Adrian. Speaker: Carey P. McCord, M.D., Detroit.

Livingston County: November 3—Howell. Speakers: L. G. Christian, M.D., A. B. Mitchell, M.D., H. A. Miller, M.D., and Wm. J. Burns, all of Lansing.

Muskegon County: October 20—Muskegon. Speaker: Lee A. White, of *Detroit News*.

Ontonagon County: October 4—Ontonagon.

JOUR. M.S.M.S.

IN MEMORIAM

Speaker: Alexander M. Campbell, M.D., Grand Rapids.

Ottawa County: Holland—October 10. Speaker: John R. Pedden, M.D., Grand Rapids.

St. Clair County: October 24—Port Huron. Speaker: H. W. Carter, M.D., Sarnia, Ont.

Wayne County: October 23—Speakers: "Medical Adjusters Commission"; H. B. Garner, M.D., L. J. Carey, LL.B., F. C. Vieson, LL.B., Frank McCormick, M.D., Earl G. Krieg, M.D., and E. Dean Alexander, LL.B. October 30—"General Practitioners Night" Panel Discussion on Heart Disease was participated in by Drs. Leslie T. Colvin, R. L. Novy, Harry B. Schmidt, F. Janney Smith, E. D. Spaulding, and Walter Wilson, Sr. Douglas Donald, M.D., was Chairman. November 6—Speaker: Clarence F. G. Brown, M.D., Chicago.

West Side Medical Society (Detroit): October 19—Detroit. Speakers: Harry A. Pearse, M.D., Gaylord S. Bates, M.D., and John G. Mateer, M.D.

* * *

Michigan Physicians Honored by American College of Surgeons

Don Wilbur McLean, M.D., Detroit, was awarded Life Membership in the American College of Surgeons for presenting the best surgical case history at the 1939 Annual Convention of the College in Philadelphia. The award is equivalent to \$500 in remitted dues. Robert J. Williams, M.D., of Monroe, tied for fourth. The physicians from Michigan who were elected to the College of Surgeons include Drs. Leon C. Bosch, Grand Rapids; Harvey F. Brown, Detroit; Chauncey Greeley Burke, Pontiac; Thomas T. Callaghan, Detroit; Meyer O. Cantor, Detroit; Clifford P. Clark, Flint; F. Bruce Fralick, Ann Arbor; Charles H. Frantz, Grand

Rapids; E. Howard Hanna, Detroit; George Hammond, Ann Arbor; Edwin L. Hansen, Battle Creek; Ernest C. Hansen, Manistee; Herbert W. Harris, Ann Arbor, I. Jerome Hauser, Detroit; Joseph A. Kurcz, Detroit; Conrad R. Lam, Detroit; Bror Hjalmar Larsson, Detroit; Edgar C. Long, Monroe; Don Wilbur McLean, Detroit; Orlando W. Pickard, Detroit; W. Joe Smith, Cadillac; Bouton F. Sowers, Benton Harbor; Wallace H. Steffensen, Grand Rapids; Cullen E. Sugg, Grand Rapids; F. Wendell Tamblin, Lansing; Charles F. Thomas, Port Huron, Vincent J. Turcotte, Detroit, and Robert J. Williams, Monroe.

IN MEMORIAM

C. D. Mulder, M.D.

Dr. Cornelius D. Mulder of Spring Lake, Michigan, died after an illness of two years. He was born in Spring Lake, in 1874, graduated from Hope College in 1899 and from the Medical College of the University of Michigan in 1903. He had practiced medicine in the vicinity of Spring Lake for 36 years, and was a member of the staff of the Spring Lake Hospital and the Hackley Hospital at Muskegon. Dr. Mulder was also a trustee of Hope College and Western Theological Seminary for many years, as well as vice president of the State Bank of Spring Lake. He leaves his wife, Harriet; two daughters, Mrs. Herman Kruizenga and Mrs. Robert Kruizenga; also three sisters, the Misses Ella, Cora, and Mary Mulder; and a brother, John, of Spring Lake.

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Acknowledgment of all books received will be made in this column and this will be deemed by us a full compensation to those sending them. A selection will be made for review, as expedient.

THE 1939 YEAR BOOK OF GENERAL MEDICINE.

Edited by George F. Dick, M.D., J. Burns Amberson, Jr., M.D., George R. Minot, M.D., S.D., F.R.C.P. (Edinburgh and London), William B. Castle, M.D., A.M., M.D. (Hoh.), Utrecht William D. Stroud, M.D., George B. Eustermann, M.D. The Year Book Publishers Incorporated, 304 South Dearborn Street, Chicago. The price of this volume is \$3.00.

* * *

AN INTRODUCTION TO MEDICAL MYCOLOGY.

By George M. Lewis, M.D., Associate and Assistant Attending Dermatologist, New York Postgraduate Medical School and Hospital, Columbia University; Instructor in Medicine, Cornell University, and Mary E. Hopper, M.D., Assistant in Mycology, Skin and Cancer Unit, New York Postgraduate Medical School and Hospital, Columbia University. 333 pages, 71 full page plates, \$5.50 postpaid. 304 S. Dearborn Street, Chicago: Year Book Publishers, 1939.

A unique work on an important subject.

* * *

THE 1939 YEAR BOOK OF RADIOLOGY.

Edited by Charles A. Waters, M.D., Associate in Roentgenology, Johns Hopkins University; Associate Editor, Whitmer B. Firor, M.D., Assistant in Roentgenology, Johns Hopkins University; and Ira I. Kaplan, B.Sc., M.D., Director, Division of Cancer, Department of Hospitals, New York City. Chicago: The Year Book Publishers, 1939.

The editors and publishers are to be commended on their splendid efforts in presenting the latest developments in the various branches of medicine. We have had occasion to review the former editions. The present yearbook of Radiology is fully equal to its predecessors.

* * *

THE ROMANCE OF PROCTOLOGY, which is the story of the history and development of this much neglected branch of surgery from its earliest times to the present day, including brief biographic sketches of those who were pioneers. By Charles Elton Blanchard, M.D., 1938, Medical Success Press Publishers, Youngstown, Ohio. The nature and subject matter of this book are implied in the title.

* * *

CLINICAL DIAGNOSIS BY LABORATORY METHOD.

By James Campbell Todd, Ph.B., M.D., Late Professor of Clinical Pathology, University of Colorado, School of Medicine; and Arthur Hawley Sanford, A.M., M.D., Professor of Clinical Pathology, University of Minnesota (The Mayo Foundation); Head of Division on Clinical Laboratories, Mayo Clinic. Ninth Edition, thoroughly revised. 841 pages with 368 illustrations, 29 in colors. Philadelphia and London: W. B. Saunders Company, 1939. Cloth, \$6.00 net.

This edition is the result of thorough revision. When there is call for nine editions of a work within thirty years, this fact alone is sufficient evidence of the value of the work. The laboratory methods in clinical diagnosis have gone a long way towards making medicine a more exact science.

* * *

THE PHYSIOLOGICAL BASIS OF MEDICAL PRACTICE.

A University of Toronto Text in Applied Physiology. By Charles Herbert Best, M.D., D.Sc. (Lond.), F.R.S., F.R.C.P. (Canada), Professor and Head of Department of Physiology, Associate Director of the Banting-Best Department of Medical Research, Univ. of Toronto; and Norman Burke Taylor, M.D., F.R.S. (Canada), F.R.C.S. (Edin.), F.R.C.P. (Canada), M.R.C.S. (Eng.), L.R.C.P. (Lond.), Professor of Physiology, University of Toronto. Second Edition. Baltimore: The Williams & Wilkins Company, 1939.

The importance of normal physiology as a basis for all medical and surgical procedure is becoming more recognized. The value of a work such as this becomes inestimable. It is broad in its appeal, namely, to the whole field of medicine and surgery, and its specialties. This work is basic to every department of medical science, and now that it has been revised, no one who wishes to practice scientific medicine can afford to be without it.

THE RECTUM AND COLON. By E. Parker Hayden, A.B., M.D., F.A.C.S., Assistant in Surgery in the Harvard Medical School, Boston; Assistant Surgeon and Chief of Rectal Clinic, Massachusetts General Hospital, Boston. Illustrated with 169 engravings, 434 pages, cloth, \$5.50. Philadelphia: Lea & Febiger, 1939.

This work deals with the surgical treatment of diseases of the rectum and colon. It is a monograph presenting practices and views of the author. The text is well illustrated by photographs and drawings. It is highly recommended as an authoritative and up to date work on the subject.

* * *

PSYCHOBIOLOGY AND PSYCHIATRY.—A textbook of Normal and Abnormal Human Behavior: By Wendell Muncie, M.D., Associate Professor of Psychiatry, Johns Hopkins University; Assistant Psychiatrist, Henry Phipps Psychiatric Clinic, Johns Hopkins Hospital. With a Foreword by Adolf Meyer, M.D., Henry Phipps Professor of Psychiatry and Director of the Department of Psychiatry, Johns Hopkins University. With 69 illustrations. St. Louis: The C. V. Mosby Company, 1939.

* * *

TEXTBOOK OF NERVOUS DISEASES. By Robert Bing, Professor of Neurology, University of Basel, Switzerland, Translated and Enlarged by Webb Haymaker, Assistant Clinical Professor of Neurology and Lecturer in Neuro-Anatomy, University of California. From the Fifth German Edition. With 207 illustrations, including 9 in color. St. Louis: The C. V. Mosby Company, 1939.

The above works might be considered companion volumes. They will, of course, grace the library of the psychiatrist. However, since the scope of medicine has been broadened to include mental hygiene, the general practitioner can no longer look upon the subject of border-line cases as beyond his field of interest. These works are authoritative in their field which entitles them to the consideration of the profession. Attractively bound and clearly written, they will be found works of practical value, which no doctor who comes in contact with cases of nervous and mental disease can afford to be without.

* * *

TREATMENT IN GENERAL PRACTICE. Two volumes, price \$7.50. Boston: Little, Brown & Co., 1939.

While no names appear on the cover of this work as author or compiler, the work is nevertheless unique. It is the result of an interesting experiment by the *British Medical Journal* which consisted in the publication of articles on medical treatment by well known clinical teachers who were chosen as being thoroughly familiar with the subject written about. The two volumes here presented comprise a series of articles. Their popularity in Great Britain has been assured and we bespeak a like popularity now that the volumes on treatment appear for the first time in the United States. In the matter of prescriptions, the apothecary instead of the metric system has been adopted throughout. The two volume work is highly commended to the medical profession.

* * *

MENTAL THERAPY, STUDIES IN FIFTY CASES. By Louis S. London, M.D., Formerly Passed Assistant Surgeon (R) United States Public Health Service; Medical Officer United States Veterans Bureau; Assistant Physician Central Islip State Hospital, Central Islip, New York, and Manhattan State Hospital, Wards Island, New York. New York: Covici, Friede Publishers, 1937.

These volumes cannot be of much help to the general practitioner. In the main, it is feared that the value of psychoanalysis has received a negative impulse rather than a positive one when interpreted by the average doctor of medicine. Psychoanalysis as developed by Freud has been a distinct contribution in the understanding of the human being.

The attempt to cover the whole field of the teachings of Freud, Stekel, Adler and others in thirty pages of reading material is too great an under-

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taking for that amount of space. It leads to confusion on the part of the physician who has not had a previous extensive psychoanalytic training.

The remainder of the two volumes is given over to the histories of fifty cases. These case reports form interesting reading to the average doctor of medicine, but it is felt that his respect for psychoanalysis will not be increased after his period of reading.

* * *

OBSTETRICAL PRACTICE. By Alfred C. Beck, M.D., Professor of Obstetrics and Gynecology, Long Island College of Medicine; Obstetrician and Gynecologist-in-Chief, Long Island College Hospital, Brooklyn. More than one thousand illustrations. Second Edition. Baltimore: The Williams & Wilkins Company, 1939. Price, \$7.00.

This work contains up to date account of the physiology of reproduction as well as results of recent research on the embryological phases. The subject of the physiology of lactation has been revised to conform with the results of recent studies in this field. The author has written chapters in the former edition on toxemia and abortion. The work will be found a very practical book on the subject of Obstetrics, Pre-management and Post-management. The author has used illustrations with a telling effect.

* * *

SYNOPSIS OF PEDIATRICS. By John Zahorsky, A.B., M.D., F.A.C.P., Professor of Pediatrics, St. Louis University School of Medicine, and Pediatrician in Chief to the St. Marys Group of Hospitals; Fellow of the American Academy of Pediatrics. Assisted by T. S. Zahorsky, B.S., M.D., Instructor in Pediatrics, St. Louis University School of Medicine, and Assistant Pediatrician to the St. Marys Group of Hospitals. Third edition, St. Louis: The C. V. Mosby Company, 1939.

This is essentially a synopsis and not a textbook on Pediatrics. Within the scope of 430 pages, the authors have accomplished a very satisfactory book for convenient reference or review. The entire subject has been covered in brief.

* * *

PHYSIOLOGICAL CHEMISTRY. A Textbook for Students. By Albert P. Mathews, Ph.D., Andrew Carnegie Professor of Biochemistry, University of Cincinnati. Sixth Edition, Illustrated. Baltimore: The Williams & Wilkins Company, 1939.

The first edition of this excellent book appeared nearly a quarter of a century ago. It has since increased in size and importance to the medical profession as each revision discussed the advances in this important branch of medical science. The subject of physiological chemistry is basic to all branches of medicine and surgery. The author truly says the biological sciences, and biochemistry not the least among these, are transforming medicine into a science. Certainty is replacing the art of guessing in the diagnosis and treatment of disease. We bespeak a hearty welcome for this sixth edition.

* * *

PRACTICAL MEDICAL DICTIONARY, Of Words used in Medicine with their Derivation and Pronunciation, including Dental, Veterinary, Chemical, Botanical, Electrical, Life Insurance and Other Special Terms. By Thomas Lathrop Stedman, M.D., and Stanley Thomas Garber, M.D. Fourteenth Revised Edition, Baltimore: Williams & Wilkins Co., 1939. Price, \$7.50.

This posthumous work was almost completely revised before its famous author died. The completion of the details incident to publication are the work of his nephew. Perhaps no other work has accomplished so much towards the standardization of medical vocabularies as Stedman's Diction-

CORRESPONDENCE

ary. An advancing science such as medicine soon outgrows its verbal garments. The fourteenth edition of Stedman is an up to the minute authoritative dictionary, convenient in size, attractive in appearance, and easy to consult.

* * *

THE VITAMINS. A Symposium Arranged Under the Auspices of the Council on Pharmacy and Chemistry and the Council on Foods of the American Medical Association. Imitation leather. Price, \$1.50, postpaid. pp. 637. Chicago: American Medical Association, 1939.

So much information has become available about the vitamins, that it is difficult even for experts to keep up with the literature. The present volume is a welcome compendium of authoritative information about these accessory food factors. There are discussions of the chemistry, physiology, pathology, pharmacology and therapeutics, methods of assay, food sources and human requirements of each of the important vitamins.

This book should prove to be an indispensable volume for the library of every physician.

* * *

FRACTURES. By Paul B. Magnuson, M.D., F.A.C.S., Associate Professor of Surgery, Northwestern University Medical School, Attending Surgeon, Passavant Memorial Hospital and Wesley Memorial Hospital, Chicago. 317 illustrations, third edition, revised and enlarged. Price \$5.00. Philadelphia: J. B. Lippincott Company, 1939.

The importance of this subject to the general practitioner and to the orthopedic surgeon is not likely to be overestimated. The physician in general practice is usually a man who first sees the fracture and it is for him particularly that the work has been written. So much depends upon proper initial treatment of fractures and so many factors require to be kept in mind that an authoritative work in the nature of a monograph is a welcome addition to the doctor's library. The book is well illustrated by means of photographs and radiographs. A third edition within three years bespeaks not only the popularity of the work but the author's ambition in keeping it up to date.

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Biography of Dr. Harvey Cushing

Editor Journal of the Michigan State Medical Society:

Mrs. Cushing has requested me to prepare a biography of her husband and I should be most grateful to anyone who wishes to make letters, anecdotes or other memorabilia available.

Copies of all letters, no matter how brief, are desired, and if dates are omitted it is hoped that, when possible, these may be supplied (e.g., from the postmark). If original letters or other documents are submitted, they will be copied and returned promptly.

A new Medical Library building is being erected at the Yale University School of Medicine to receive Dr. Cushing's library and collections, including his letters, diaries and manuscripts. Any of his friends who wish, now or later, to present correspondence, photographs or other memorabilia for permanent preservation among the Cushing papers will receive the appreciative thanks of the University.

JOHN F. FULTON, M.D.,
Yale University School of Medicine,
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Among Our Contributors

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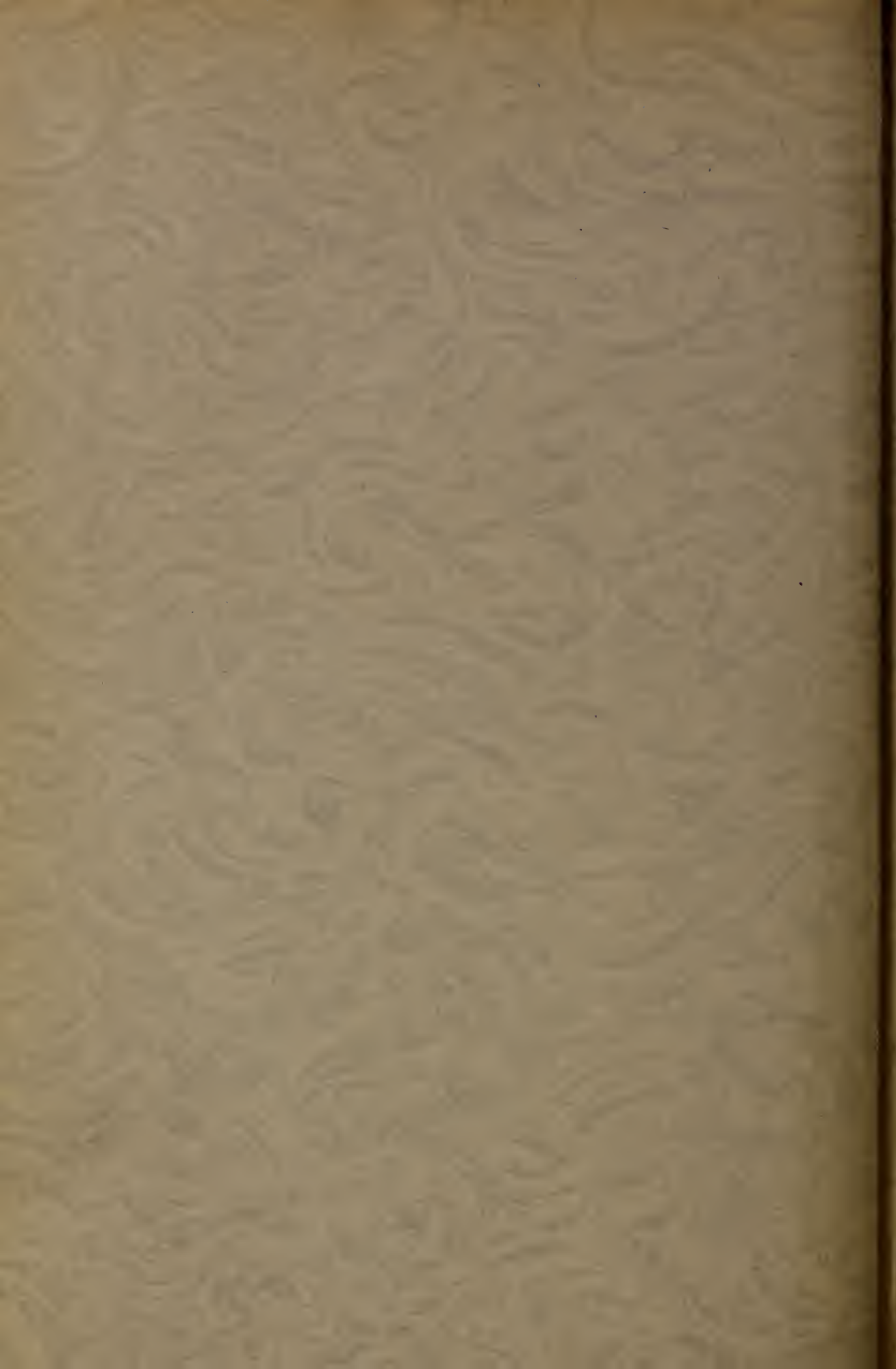
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